Public Utilities

FORTNIGHTLY

Volume XLVIII No. 12 December 6, 1951

OUR DOUBLE-STANDARD WAR FOR FREEDOM

By Alvin A. Burger

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Airline Subsidies Can Be Eliminated

By Harold D. Koontz

‹ ›

Hardest Working River in the Nation

By M. H. Frank

‹ ›

Utility Cases before the U. S. Supreme Court

By Joseph E. Finley

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Public Utilities
FORTNIGHTLY

VOLUME XLVIII DECEMBER 6, 1951 NUMBER 12

ARTICLES

FEATURE SECTIONS

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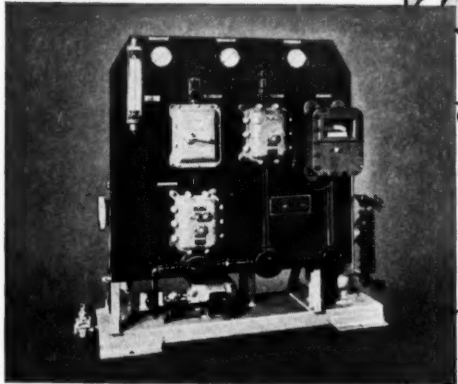
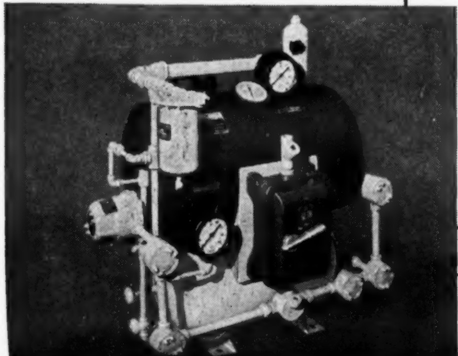


ELECTROIL FOGGER



PROOF that Gas Companies like the New BLAW-KNOX Electroil FOGGER


Chattanooga (2)
Spartanburg (2)

Pages with the Editors

It is surprising how the avowed believers in the enterprise system differ on the prospects for the socialistic repeal program recently announced by Prime Minister Churchill. It goes without saying that privately owned utilities, which are in the first trench opposing the advance of Socialism in the United States, have more than an academic interest in the question of whether socialization of an industry can be turned back to an enterprise status.

One would think that Churchill's announcement that he was starting his Conservative government on the hard road back—even though with such a modest beginning as the repeal of steel industry nationalization—would be welcomed with enthusiasm in right-wing quarters. But instead of breaking into songs such as "The World Is Waiting for the Sunrise," the skeptics of the right, as well as of the left, are saying that it can't be done. They are saying that Churchill is trying to unscramble the eggs and that his program ought to be called by the nickname "Operation Humpty-Dumpty."

Admittedly, Churchill's task is a formidable one. He can rely, at best, on a razor-edged majority. That, in turn, undermines the confidence which private investors would have to have, before buying back the steel plants. Buying into any British industry, under prevailing international and domestic disturbances, would challenge the optimism of anybody with an extra pound in Britain. And there are not very many left with an extra pound in Britain these days.

In short, the skeptics take the dark view that state Socialism is like quicksand—easy to get into, but almost impossible to get out of without outside assistance. The best way to avoid Socialism, they say, is not to get into it at all. They point out that never, in recorded history, has state Socialism been reversed with

ALVIN A. BURGER

the approval of a democratic election. Socialistic nations have failed before. Quite often, in fact. But they generally had to collapse, or be taken over by some other form of government. They never worked out their economic salvation voluntarily.

There are some hopeful factors which indicate that Churchill may be able to find the road back, which the skeptics do not think exists. First of all, the Labor government concentrated on overthrowing private enterprise in Britain's iron and steel industry because that industry was the greatest single industrial embarrassment to the doctrinaire Socialists.

Thus the British steel industry's great sin in Labor's eyes was that it was successful. It was doing its job very well under private ownership. Its labor relations were good; its equipment was modern; its production was expanding. Its main problem was the uncertainty of coal supply. The blame for that had to be placed at the door of Britain's bogged down socialized coal industry.

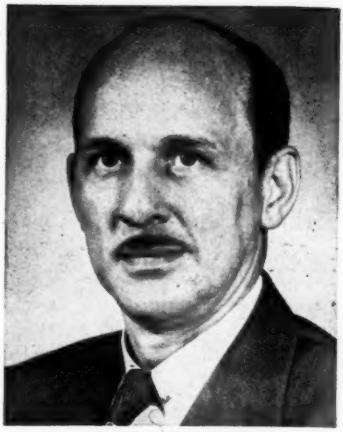
One circumstance in Churchill's favor is that the "scrambling" process has not yet proceeded very far in Britain's

steel industry. The Labor government only took over control at the beginning of this year—after a bitter last-ditch struggle by the Tories in Parliament. Labor did not want to tear down the efficient apparatus of operation and management which private enterprise had successfully established. Thus, the old company structures, including management, all still remain intact. This would seem to be Churchill's opportunity.

But even Churchill would admit that any repeal of British public utility socialization would be a long way off, even if the steel program proves entirely successful, all of which points to the importance of combating the steady erosion of creeping Socialism in the United States—from the standpoint of believers in the enterprise system.

The first article in this issue deals with a peculiar paradox in the attitude of many people in this country towards Socialism abroad, as compared with Socialism at home. The article raises this question: How can we explain our present double-faced Federal policy of spending American billions abroad to fight Communism, while at the same time spending billions at home to support ever-broadening socialistic adventures at the expense of the taxpayer?

Alvin A. Burger, author of this article, is the research director of the Council of State Chambers of Commerce since 1947. He occupies a similar capacity with the New Jersey Chamber of Commerce. He is treasurer of the Governmental Research Association; a member of the board of directors of the Tax Institute, Inc., of New York; and a member of the Academy of Political Science, American Economic Association, American Society of Public Administration, American Academy of Political and Social Science, American Association for the Advancement of Science, and other national bodies. Mr. Burger is the author of numerous articles and reports on a wide range of subjects pertaining to local, state, and Federal finance, public education, public pension problems, and legislation.



HAROLD D. KOONTZ

M. H. Frank (whose article entitled "Hardest Working River in the Nation" begins on page 817) is an engineering graduate of Purdue University ('12) and began his career with the New York Central Railroad, but switched into the electric field in 1918 as local manager of the Eastern Wisconsin Electric Company at Fond du Lac. He has since risen to the post of vice president of the Wisconsin Power & Light Company, a successor organization. Mr. Frank has been very active in industrial, professional, and civic associations at both state and national levels. He makes his home in Madison.

* * * *

Professor Harold D. Koontz (whose article entitled "Airline Subsidies Can Be Eliminated" begins on page 805) is a native of Ohio and a graduate of Oberlin College (AB, '30), Northwestern (MBA, '31), and Yale (PhD, '35). His career has been mostly in the field of teaching, specializing in economics at Duke University, University of Toledo, and Colgate University. He is now professor of business and transportation at the University of California, Los Angeles.

The next number of this magazine will be out December 20th.

The Editors

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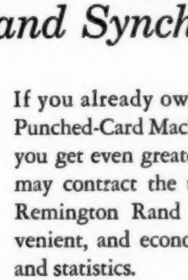

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NEEDED—A FINANCIAL RELATIONS PROGRAM

The utility industries, confronted with the necessity of raising so much money, must by the same token meet the equally challenging task of getting their financial relations program in good shape as early as possible. Some financial observers think that the utility industries may be unwisely gambling on the continuation of a good common stock market long enough to do the major portion of the financing necessary for their gigantic construction programs. Theron W. Locke, veteran New York security analyst, brings to our readers a most timely and thought-provoking article on the need of utilities to do more missionary work among security buyers and financial analysts. After all, people do not **have** to buy utility securities.

ACCOUNTING FOR TAX AMORTIZATION OF DEFENSE FACILITIES

What effect will the accelerated tax amortization privileges, granted by the Federal government to some public utilities as an incentive to build plant facilities exclusively for national defense, have on long-range rate regulation? Rapid depreciation of utility plant for tax purposes is not a windfall. It simply means the concentration of a tax advantage within a short period which might otherwise be spread over a longer period. Recently, the Michigan Public Service Commission issued an order covering this problem for purposes of rate regulation. E. E. Roll, assistant to general accountant, The Detroit Edison Company, gives us a factual description of safe and sound accounting for tax amortization of defense facilities by utilities.

TRANSIT'S UNFAIR FARE LAG

The Wisconsin commission recently said, in fixing transit fares for the Milwaukee area, that a regulatory body has no power to compel people to use transit services if they do not want to do so. This is true, even though the cost of such service to the patron is well known to be below the cost of corresponding service by private automobile transportation. The transit industry's economic problem results, in part, from the lag between increased operating expenses and adequate fare structure. Philip B. Willauer, Philadelphia attorney specializing in transit matters, explains how this works out and what can be done about it.

INSTITUTIONAL HOLDINGS OF UTILITY SECURITIES

For many years it has been generally supposed that institutional investors, such as colleges, foundations, etc., are heavily invested in public utility securities. To what practical extent is this really true? Owen Ely, financial editor of the PUBLIC UTILITIES FORTNIGHTLY, intrigued by this question, made it a special research project, conducting his own survey of relative portfolio holdings by institutional investors. The result of his study will really be an eye opener to a good many people who may have had different impressions.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

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Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

EDWIN G. NOURSE
Former chairman, Council of Economic Advisers.

"The control program has become a costly and burdensome hoax."

E. E. TOWNES
Houston attorney.

"If we don't wake up in the next five years, we'll need a second Declaration of Independence and a revolution."

BREHON SOMERVELL
Chairman and president, Koppers Company.

"A good many Americans have adopted, consciously or unconsciously, some of the modes and elements of typical Russian political thinking."

HARRY W. MORRISON
President, Morrison-Knudsen Company, Inc.

"If all this agitation for public power would subside and let the people who can do it and want to do it go ahead, the country would be much better off."

M. S. RUKEYSER
Columnist.

"In these days of all-powerful and sprawling bureaucracy, it is essential to keep open the avenues of criticism for the citizens and their representatives in Congress."

EDITORIAL STATEMENT
The Philadelphia Inquirer.

"It is easy to vote a nation into Socialism. It takes more than votes to get a nation clear of it. That's why America must beware of piecemeal Socialism. The way out of Socialism is never to get in."

AUSTIN S. IGLEHEART
President, General Foods Corporation.

"Many Americans have either lost their sense of uprightness or have willfully been doing what they know to be wrong—the more so, since the rest of us have inclined to let them get away with it."

WALTER F. GEORGE
U. S. Senator from Georgia.

"I see no reason on earth why we cannot face the facts of life and cut spending back by a substantial sum, both for foreign aid and domestic purposes, and have out of this vast revenue something to apply on the public debt."

BEARDSLEY RUML
Chairman of the board, R. H. Macy & Co.

"A corporation is nothing but a way of doing business. . . . Taxes on corporation income must be paid by one or more of the people who are parties at interest, either as customer, as employee, or as stockholder. A corporation is an abstract idea and a concrete form. A corporation as such can pay no taxes."

EDITORIAL STATEMENT
The Nation.

". . . important interest groups clearly favor inflation as a means of forcing unorganized elements in the population to assume as large a portion of the staggering cost of rearmament as they can be made to carry."

JOHN L. COLLYER
President, B. F. Goodrich Company.

"Business, in order to attract needed risk capital, must on the average earn the price of capital after taxes. This means that the prices of goods and services must be kept high enough, regardless of business income tax rates, to make it possible for business generally to pay capital its price after taxes."

Excerpt from "Business Survey," published by Guaranty Trust Company.

"The inflationary tendencies and nationalistic economic policies so prevalent abroad today are, of course, not made in America. Yet we in America have not recognized that, in failing to achieve basic stability ourselves, we have failed to furnish the type of leadership most needed for the attainment of international stability."

H. E. HUMPHREYS, JR.
President and chairman of the board, United States Rubber Company.

"Once a person understands what makes a corporation tick, he will realize that his personal interest, business interest, and public interest are all wrapped up together. He will support our business system in whatever rôles he finds himself, whether it be as an employee, as an investor, as a customer, or as a voting citizen."

DEANE W. MALOTT
President, Cornell University.

"Storm signals are flying in the very financial structure of this nation and the future of the world is literally on your doorstep. [No banker] would allow any customer to get into the position of our Federal government, living extravagantly and wastefully beyond its means, fostering inflation, borrowing increasingly, and wastefully consuming the nation's raw material resources."

IRVING S. OLDS
Chairman of the board, United States Steel Company.

". . . freedom of education and freedom of enterprise are part and parcel of the same thing . . . they are inseparable . . . neither can survive without the other. That is why no true believer in free enterprise will ever let our independent universities die for want of his support; and why no honest devotee of academic freedom will ever seek to destroy our faith in the American system of incentive and free enterprise."

EDITORIAL STATEMENT
The Wall Street Journal.

"Once you begin compromising with Socialism—whether it is called by that name or not—you cannot stop. You have to keep going until you reach the final destination. That is a lesson not only for me-tooers, but also for those who, doubtless quite sincerely, think the United States can stop at a 'fair deal' or some other halfway house and go no further. In Britain, the halfway house is collapsing, and even its designers know it."

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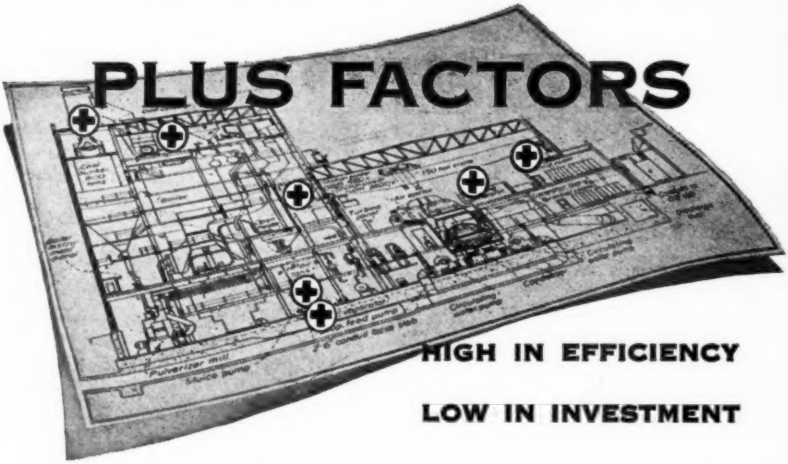

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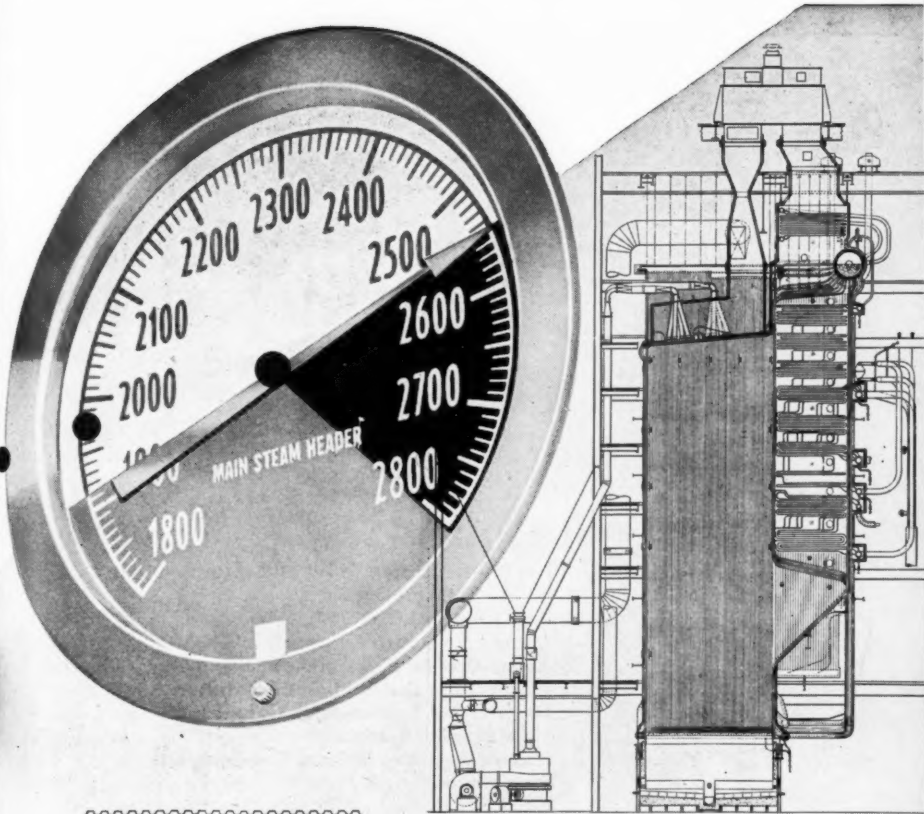

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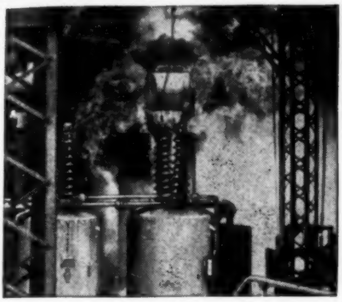

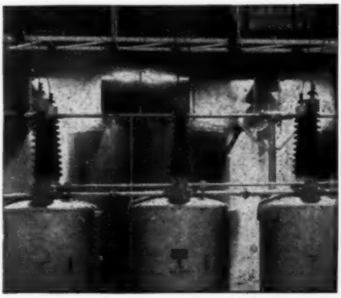

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- At a substation of the Omaha Public Power District, Omaha, Nebraska, two 25-year-old three phase 6250 KVA 13.2—2.3 KV water-cooled indoor type transformers were protected by a MULSIFYRE System automatically actuated by Quartzoid Pilot Sprinklers. On August 30, 1944 a minor explosion occurred, setting the transformer afire. The Grinnell MULSIFYRE System went into operation immediately, and there was no fire damage.

- In 1948, a lightly constructed wooden sawing shed was erected by the Singer Manufacturing Company, Bridgeport, Connecticut, adjacent to a bank of three 500 KVA transformers. A fire started in the shed, apparently when a carelessly discarded cigarette or match ignited sawdust, and quickly burned through the roof. The MULSIFYRE System operated over the exposed transformers, preventing damage to them.

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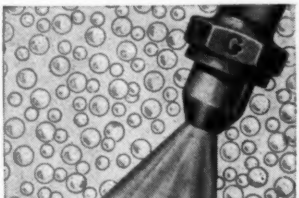

GRINNELL *Mulsifyre*

EMULSION-EXTINGUISHMENT OF OIL FIRES

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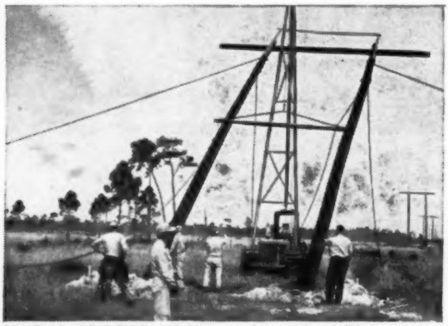
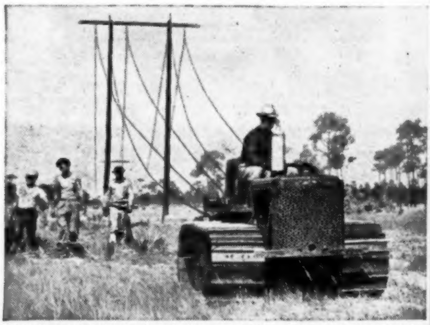


SPECIAL 32-FOOT BOOM on International TD-9 sets the 55-foot poles in position.



IT TAKES PULL to do this job. A handy, wide-tracked TD-6, International's smallest crawler, raises the wires.

Fort Myers, Florida, was vulnerable to power failure from hurricanes. Then the Florida Power and Light Company ran in a second 66,000-volt high-line from a booster station 24 miles away.

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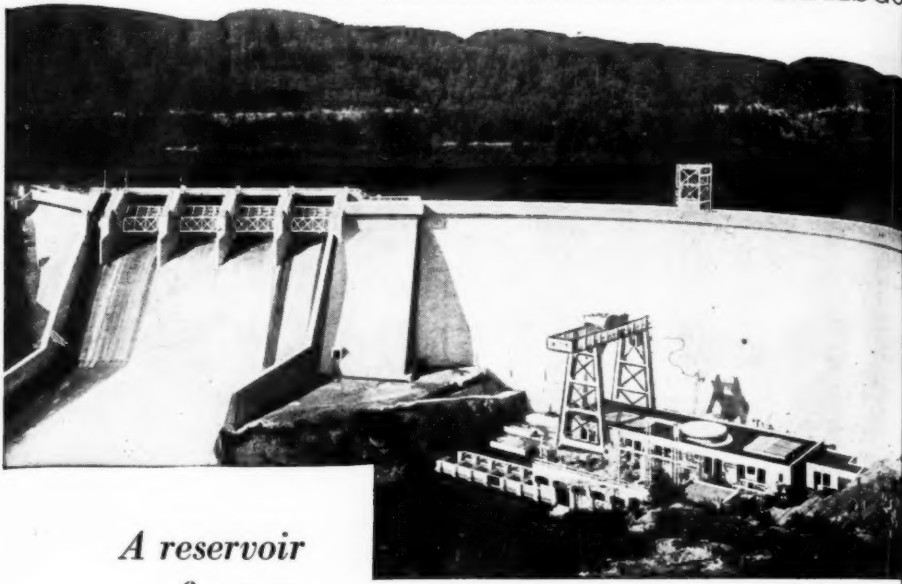

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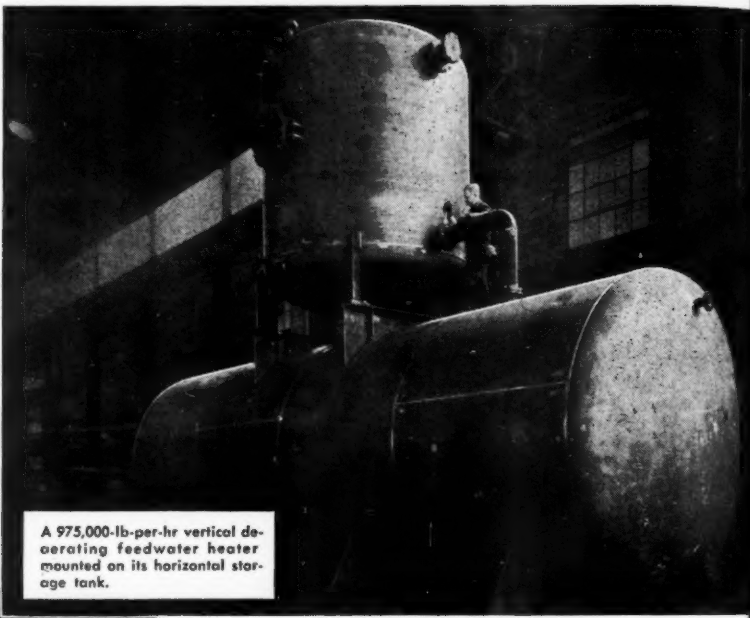
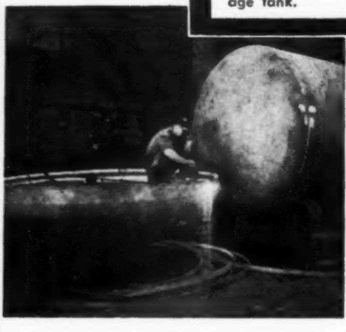


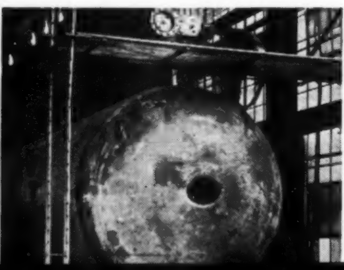
A 975,000-lb-per-hr vertical deaerating feedwater heater mounted on its horizontal storage tank.



Scarfing a head, preparatory to fit-up and welding.

• • •

A.S.M.E.-approved automatic welding is used wherever possible in deaerating heaters and storage tanks.



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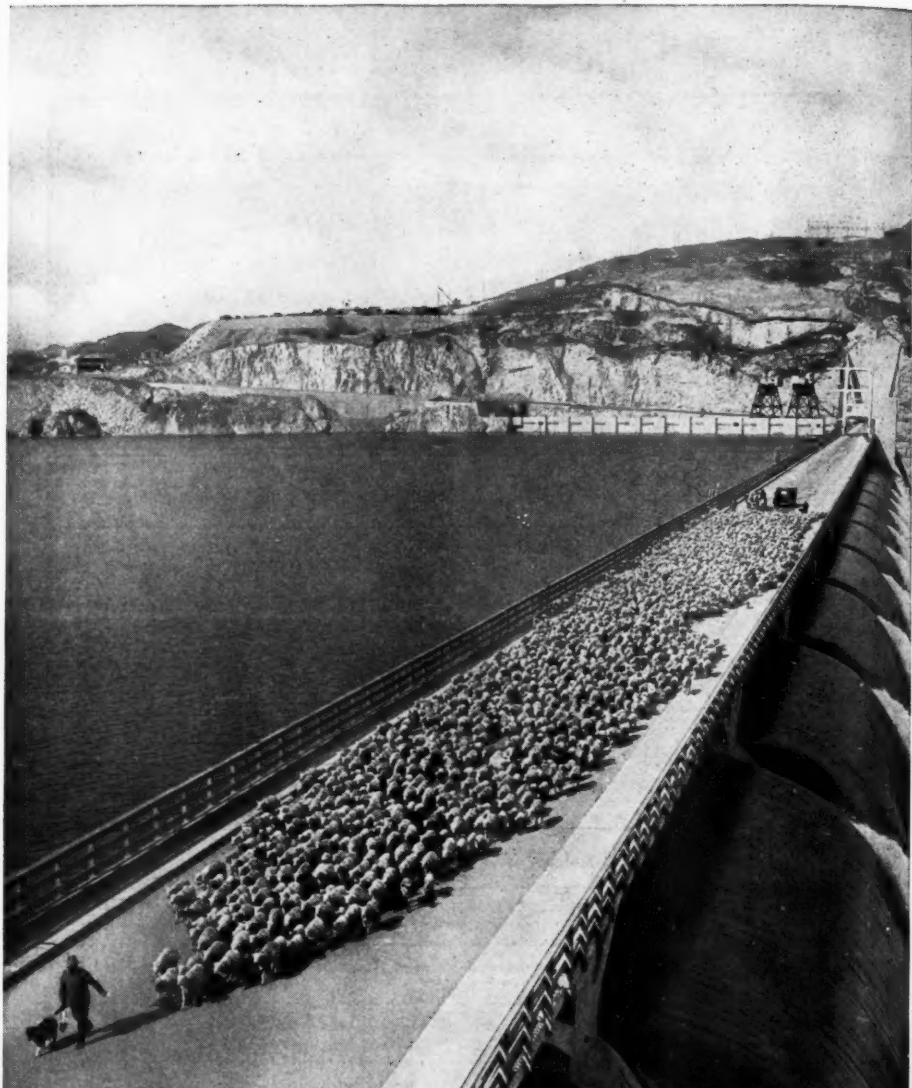
Utilities Almanack

December

6	Th	¶ *American Institute of Electrical Engineers begins technical conference, Atlantic City, N. J., 1951.*
7	F	¶ *Public Utilities Advertising Association, Region 2, begins one-day meeting, New York, N. Y., 1951.*
8	Sa	¶ *Electrical and Gas Association of New York, Inc., will hold Christmas luncheon, New York, N. Y., Dec. 20, 1951.*
9	S	¶ *Television Authority ends two-day convention, Park Sheraton Hotel, New York, N. Y., 1951.*
10	M	¶ *Columbia Affiliates Advisory Board, Districts 4, 5, and 8, begins meeting, New Orleans, La., 1951.*
11	Tu	¶ *Canadian Electrical Association, Engineering and Operating Division, Eastern Zone, begins meeting, Montreal, Quebec, Canada, Jan. 14, 15, 1952.*
12	W	¶ *Edison Electric Institute, Commercial Lighting Committee, begins meeting, Roanoke, Va., 1951.*
13	Th	¶ *Edison Electric Institute, Industrial Relations Committee, begins meeting, New York, N. Y., 1951.*
14	F	¶ *Edison Electric Institute, Commercial Cooking Committee, begins meeting, Cincinnati, Ohio, 1951.*
15	Sa	¶ *American Gas Association will hold home service workshop, Chicago, Ill., Jan. 21-23, 1952.*
16	S	¶ *Edison Electric Institute, Dealer Co-ordination Committee, begins meeting, Chicago, Ill., 1951.*
17	M	¶ *American Institute of Electrical Engineers will hold winter general meeting, New York, N. Y., Jan. 21-25, 1952.*
18	Tu	¶ *American Society of Heating and Ventilating Engineers will hold meeting, St. Louis, Mo., Jan. 28-30, 1952.*
19	W	¶ *American Gas Association-Edison Electric Institute, Accounting committees, will hold meeting, Columbus, Ohio, Jan. 31, Feb. 1, 1952.*



Courtesy, U. S. Bureau of Reclamation

Heading for Greener Pastures

A shepherd and his flock cross the Grand Coulee dam in Washington.

Public Utilities
FORTNIGHTLY

VOL. XLVIII, NO. 12 DECEMBER 6, 1951

Our Double-standard War For Freedom

State Socialism has sometimes been called "slow motion Communism." Conversely, Communism has been called "Socialism gone broke"—in receivership or dictatorship. But how can we explain our present double-faced Federal policy of spending American billions abroad to fight Communism, while at the same time spending billions at home to support ever-broadening socialistic adventures at the expense of the taxpayer? Here is a forthright analysis of our government's double standard of treating Socialism at home and abroad.

BY ALVIN A. BURGER*

SOON after the outbreak of the Korean war in June, 1950, President Truman called upon the American people to form a united front in what he described as a struggle between the free world and communist aggression.

"It is your fight, the fight of all of us," he said in a radio address, "and it can be won only if all of us fight it together. . . . We can and must submerge petty differences in the common task of preserving freedom in the world."

The President's plea for unity brought a prompt and wholehearted response from every segment of American life. This was characteristic of our people in time of national peril. They not only tackled with a will the

*For personal note, see "Pages with the Editors."

positive tasks which the new emergency required of them, but showed a willingness even to accept whatever temporary economic controls might be needed in the change-over from peace to quasi war. Never in the nation's history, short of all-out war, had our government been so sure of the universal backing of its people.

But as the months passed it became clear that the government itself was not following the sound advice which the President had urged upon the people. The vast Washington bureaucracy was dragging its feet in exercising "patriotic self-restraint" in the conservation of man power, goods, and funds. Nor were the entrenched policy makers in the government showing any inclination to "submerge petty differences" where it might interfere with the promotion of schemes to which they had long dedicated their energies. All this was amply confirmed when the President's 1952 budget message was submitted to Congress on January 15, 1951. Not only did the new budget chart a "spending as usual" course, but it brought forward once again just about every controversial measure which had kept the country divided into a score of class, group, and sectional conflicts ever since the end of World War II.

SENATOR Harry F. Byrd of Virginia said, "Not only has the President, in the time of our greatest crisis, failed to keep his pledge for a rigid reduction in nondefense spending, but he has renewed his advocacy of the socialistic measures known as the 'Fair Deal' . . . Unity and the sacrifices necessary to save our country must be a two-way street. They must come from the government as well as from the citizens."

Included in the new spending programs in the President's budget for the fiscal year 1952 were proposals to expand federally owned industrial and electric power facilities; extend Federal subsidization and control of agriculture; impose a system of socialized medicine; project the government into state-local school financing; increase the authority of the Department of Labor over state-administered unemployment compensation systems; and extend Federal activity in the banking and housing fields. The budget message even promised a new effort to obtain the enactment of the highly controversial Fair Employment Practice Committee legislation.

ALL these were now being proposed in the guise of national defense "musts." But they did not fool the nation's doctors, farmers, governors, manufacturers, businessmen, and others whose interests were intruded upon by the measures in question. All these groups had gladly offered their services in the common cause against the spread of Russian socialist totalitarianism abroad. Now they found themselves obliged to defend themselves against a new assault by socialistic planners on the home front. For it was plain—and subsequent legislative measures promoted by left-wing elements in Congress confirmed it—that these entrenched socialist forces had decided to take full advantage of the crisis thrust upon us by the Korean war to achieve what the late Harold Laski, godfather of present-day American Socialism, used to call "revolution by consent."

It would be inaccurate, of course, to associate President Truman with the pursuit of socialist objectives as such.

He has always emphatically denied that he has any affinity for socialist aims. But as the product of a tough political school, the Pendergast machine of Kansas City, Mr. Truman has been well trained in the art of using the processes of representative government to maneuver large transfers of social power from private hands into the hands of government. His political acumen in this regard has been of great value to those who have long been dedicated to the pursuit of socialist ends.

There is reason to believe that when the Korean war began President Truman was ready to help the cause of national unity by giving up his aggressive sponsorship—for the time being at least—of Fair Deal measures which had so long divided the country.

But it would appear that the pressure of left-wing forces in and out of the government were strong enough to induce him to reverse this position, and finally on January 9th he told the newspapers that he was determined "not to abandon any part of the Fair Deal program in the current war emergency."

Blueprint for Creeping Socialism In America

Obviously, the socialist planners held national unity in this time of national peril to be far less important than the attainment of a priority rating for their favored socialistic measures. This was only natural, since it was in perfect accord with their long-standing plan of action. In his book, *Reflections on the Revolution of Our Time* (published by the Viking Press in 1943), Harold Laski maintained that Socialism would never come to America or Britain by resort to violence, but must be attained by seizing upon a period of great national crisis, such as war, to obtain the adoption of "emergency" measures which, added together, would constitute the socialist program. The word "Socialism" must never enter the picture. It would all be done in the name of democracy. Mr. Laski's concept of democracy is interesting. "There is nothing in the nature of the Bolshevik state," he said, "which is alien from the democratic ideal."

It is well that we set ourselves straight in the matter of the similarity of communist and socialist doctrine. The writings of Laski and other present-day Socialists have emphasized time and again that there is little if any difference in the social objectives

¶ "The *advances made to date by American Socialism extend over a wide front. They have been helped along immeasurably by the rapid growth of the Federal bureaucracy itself, a growth fed by large accretions of new responsibility and power snatched from the long series of crises plaguing the country ever since the New Deal began.*"

of the two, although Socialists have split with Russian Communists over tactics. The fundamental Marxian aim of both is state ownership of the means of production. Henry Hazlitt told members of the New Jersey Bar Association last spring, "The Russian Communists do not draw any distinction between Communism and Socialism. They call themselves the USSR—the Union of Soviet Socialist Republics. Thirty years ago Lenin wrote: 'As long as Capitalism and *Socialism* remain, we cannot live in peace.' So the people who are making ideological war on us know what the war is about even if some of their victims haven't found out yet."

THE European economist, Wilhelm Roepke, has shrewdly pointed out that the difference between an avowed Communist and a self-styled "democratic" Socialist is about the same as that between a man guilty of first-degree murder and a man guilty of manslaughter. The difference is only in intent, not in result.

Laski's concept of "revolution by consent" had been accepted and put to work by American Socialists years before it was spelled out in his *Reflections* in 1943. An epochal socialist symposium held in 1929 repudiated the communist tactic of violence as being inconsistent with American temperament, and turned instead toward the more peaceful processes of Fabianism (later published in *The Socialism of Our Times* Vanguard Press).

This was at a time when most Socialists had little hope of bringing about their particular kind of millenium in the United States within a generation, but this glum outlook was suddenly changed by the stock market collapse in October of that same year and the ensuing bitter economic depression.

When the New Deal emerged in 1933, left-wing leaders remembered the advice given by H. S. Rauschenbush at the 1929 symposium. Rauschenbush said, "The students coming from the colleges can be of enormous use to the movement as government officials, starting in small and definitely working on the hope that in another ten years we shall have government control over our trusts, banks, and general industries. One good man with his eyes, ears, and wits about him inside a department, whether it be the Interior or the Treasury . . . can do more to perfect the technique of control over industry than a hundred men outside." It was not long before a veritable horde of college radicals began pouring onto the government payrolls.

THE progress made in the advancement of socialist objectives in this country since 1933 is only less amazing than is the success which left-wing forces have had in keeping large numbers of the American people fooled as to the socialist nature of the measures they have promulgated. There are many published works available showing what these objectives are and outlining strategy to be pursued in attaining them. Laski's blueprint, with which few Socialists have differed, calls for a transfer of "the fundamental bases of economic power" into the hands of the state. These bases are:

Showdown Needed in Fight on Socialism

"We can win the fight against Socialism at home if we undertake an aggressive heads-up campaign to expose and defeat it, for truth is on our side. The left-wing leaders have promised a great many things to the American people, and always they have implied that these things were to be free for the asking, because the rich would be made to pay for them. Many of these promised benefits have, indeed, been supplied, but the cost has already become so great that both the rich and the poor have had to be taxed to the hilt to meet it."

1. State control of the supply of capital and credit.
2. State ownership and control of electric power, transport, fuel, the mines, and other basic industries.
3. State ownership or control of the land.
4. State control of shipping and the import and export trade.

The chief political instruments by which American Socialism seeks to advance its basic goals are these:

1. Federal pre-emption of the taxing power.
2. Federal control of the means of education and information.
3. Federal control of the police power.

Our Socialists realized early in the game that the rank and file of the American people could not be won to such a program by the negative "class struggle" approach of European Socialism. As Professor Paul H. Douglas (now Senator from Illinois) remarked in 1929, "If Socialism is to be effective, it must hold out a confident promise of a still better and more orderly life than that which workers now enjoy." Harold Laski was more specific. "My feeling is," he said, "that the first step of all is to awaken the American people to a sense of the positive character of the state. They *must be made to realize* the intimate way in which its activities alter the inner fabric of their lives." And so he prescribed as a starter three forms of "social insurance": unemployment insurance, old-age and widows' pensions, and socialized medicine. "These ought, of course, to be national in plan," he advised.

Well on Way toward Economic Goals

The advances made to date by American Socialism extend over

a wide front. They have been helped along immeasurably by the rapid growth of the Federal bureaucracy itself, a growth fed by large accretions of new responsibility and power snatched from the long series of crises plaguing the country ever since the New Deal began. To give any comprehensive recital of these gains by Socialism would be out of the question in this short article, but a few of the more striking examples may help at least to point up the formidable job which now lies ahead for those who want to see our free society preserved and strengthened.

TAKE banking and credit, which Laski described as "the most vital" of his four bases of economic power. The Hoover Commission, reporting in 1949, found 40 Federal agencies engaged in banking and credit activities, 37 of these having been set up since 1931. The government was shown to have an investment of over $12 billion in these agencies, with commitments to supply them with over $9 billion more. Loan guaranties totaled $8.5 billion and the value of deposits insured by Federal agencies was over $80 billion. The Hoover Commission's task force urged that direct lending by the government "be absolutely avoided except for emergencies." This recommendation has been ignored. Congressional efforts this year to abolish the RFC have gotten nowhere, despite the shocking disclosures of wide-scale political lending carried on by that agency.

In the meantime the Korean emergency has brought action giving the President new authority to control bank and consumer credit and to finance construction of defense-related industrial plants.

ONE of the most striking and sinister socialist assaults made so far upon our economic system is found, of course, in the government's invasion of the electric power field. In no nation in the world has electric power been developed and put to use for the common good to anywhere near the extent it has been in the United States under private financing and operation. Yet the nation today witnesses the amazing spectacle not only of aggressive Federal intrusion into the power field in competition with private utilities, but also of heavy-handed bureaucratic opposition to the extension of private utilities' services in state after state.

While privately owned utilities have increased their total electric power capacity by 80 per cent in the last twenty years—from 27,950,000 to 51,000,000 kilowatts — publicly owned electric capacity has been increased by nearly 600 per cent, from 1,886,000 to 13,000,000 kilowatts. Plans of the Federal power interests call for the creation of nine regional power authorities which would virtually blanket the country and bring the total capacity of federally owned facilities up to 65,000,000 kilowatts, at a cost to the taxpayers of nearly $50 billion.

The Hoover Commission's task force on water resources projects urged Congress to adopt a Federal power policy which would restrict government competition "with its citizens" in electric power development and marketing. The government planners have ignored such proposals and have seized upon the Korean emer-

gency to press for many new power projects, steam plants, and thousands of miles of government-owned transmission lines claimed to be needed in the national defense effort. At the same time they have acted to block important moves by privately owned utilities to meet these defense needs where they occur. These fantastic goings-on have serious implications for free enterprise in this country, for once the central government obtains a monopoly in electric power, no manufacturing concern, large or small, will again be fully free to decide for itself where it shall locate, what it shall produce, or whom it shall employ.

IN the attainment of another objective in the Laski blueprint—namely, state ownership and control of the land—greater progress has been made than is sometimes realized. To begin with, the Federal government presently owns more than one-fifth of the total land area of continental United States, and if such river valley projects as CVA, MVA, and others now actively promoted in Congress should be approved, the government would acquire vast additional acreages by condemnation and purchase. Large acquisition of more land and property for military purposes in the present war emergency will add substantially to Federal property holdings.

Through its production and marketing quota systems under present farm subsidy laws, the government already has obtained a firm foothold in the control of agricultural production. It was in a farm subsidy case (Wickard *v.* Filburn) that the Supreme Court decided in 1942 that "it is not lack of due process for the government to regulate that which it subsidizes." Adoption of the Brannan farm subsidy plan would, of course, greatly increase Federal domination of agriculture.

A new avenue for control of land use was opened up by the enactment in 1949 of the $16 billion Federal Housing Act. The far-reaching implications which this and subsequent public housing legislation would have for home ownership and for building and real estate enterprises can only be guessed at now. A noted advocate once wrote that public housing would afford politicians "a bonanza beyond their wildest dreams," since it would give them jobs, fees, and profits to hand out, building contracts to award, and apartments to rent to anxious tenants who vote.

Devices for Restricting Private Business

AMERICAN socialist blueprints do not call for complete state ownership of all business, but would allow some

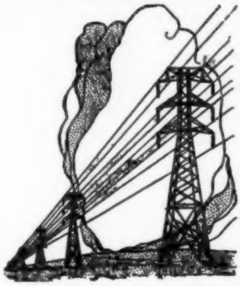
¶ "THE *progress made in the advancement of socialist objectives in this country since 1933 is only less amazing than is the success which left-wing forces have had in keeping large numbers of the American people fooled as to the socialist nature of the measures they have promulgated.*"

to be retained in private hands, "as islands in the midst of an ocean of social enterprise," as Harry W. Laidler put it. Two devices seized upon by Socialists to aid in restricting the growth of private enterprise are voluntary co-operatives and government corporations or authorities. "The co-operative movement," said August Claessens, "is tremendously important to the achievement of Socialism. It is the laboratory in which is tested the substance of Socialism—production and distribution for use instead of for profit." In the past fifteen years, the co-operative movement in America has grown by leaps and bounds under the stimulus of subsidies, tax concessions, and other legislated aids. It is estimated that co-operative and mutual ownership enterprises now show a net income of $2 billion annually. The preferential treatment which co-operatives receive at the hands of the government gives them a tremendous advantage over competing private businesses, and as they grow in size and numbers they become an increasingly powerful lobby in pursuit of even greater privileges.

PARTICIPANTS in the 1929 socialist symposium spoke well of the government corporation as an instrument for furthering the industrial aims of Socialism. Professor Paul H. Douglas said, "The Russian practice of creating state corporations is an invaluable administrative device which lessens many of the difficulties which would otherwise attend nationalization." The ardor with which the New Deal embraced the government corporation idea was clearly revealed in the Byrd committee's report on government corporations in August, 1944. It found that where only 10 had been in existence in 1931, there were 44 (including the Tennessee Valley Authority) in 1944, with net assets aggregating more than $20 billion. The committee declared that the corporate form had been "too freely resorted to"; that the government corporations encroached upon and competed with private business; that most of them had not been successful on a profit-and-loss basis; and that the chief purpose behind them seemed to be "to avoid the ordinary restraints placed upon regular government establishments and to create a reservoir of capital." The committee's findings led to the passage in 1945 of the Government Corporation Control Act. Although this legislation ended some of the abuses to which the corporate device had given rise, it checked only temporarily the left-wing demands for the creation of new corporations and new authorities. The Korean war now has given this pressure new impetus.

Socialism and the Taxing Power

THE progress made by American Socialism in attaining its political objectives is quite apparent to the observer of the national scene, but nowhere is this more strikingly shown than in the field of taxation. The socialist program, according to Laski, calls for steep progressive rates of income taxation by the central government, the amounts so raised "to be used as grants-in-aid for social purposes, such as education to the states." He continues: "The idea of the grant-in-aid is fundamental to the idea of the national minimum, and this, in



Power in the Foreground of American Socialism

"One of the most striking and sinister socialist assaults made so far upon our economic system is found . . . in the government's invasion of the electric power field. In no nation in the world has electric power been developed and put to use for the common good to anywhere near the extent it has been in the United States under private financing and operation. Yet the nation today witnesses the amazing spectacle not only of aggressive Federal intrusion into the power field in competition with private utilities, but also of heavy-handed bureaucratic opposition to the extension of private utilities' services in state after state."

turn, lies at the heart of Socialism."

In 1935 all state and local taxes combined totaled $7 billion, while Federal taxes amounted to $3.5 billion. By 1950 state and local taxes had risen to $17 billion, but Federal taxes had soared to $38 billion. This was before Korea. Today, after the enactment of three new tax-increase measures within a year to meet the new war emergency, we find ourselves being called upon to shoulder a Federal tax burden estimated at $67 billion annually, or $71 billion if one includes payroll taxes dedicated to social insurance. Federal, state, and local taxes combined are now expected to take nearly a third of the income of the American people.

High Federal taxes have profoundly affected the American political economy in a variety of ways. For one thing, they have led to Federal intrusion into many tax fields on which state and local governments have relied, thus cutting down the base upon which their financial structures are built. This has encouraged the growth of Federal grants-in-aid for a wide variety of purposes. It now develops, however, that this distribution of Federal largesse to the states has been attended by an increasing amount of Federal control and dictation. The governors and state legislatures do not like that, so they have begun to oppose new grant-in-aid programs, such as Federal aid to edu-

cation, and have demanded instead that Washington begin to withdraw from tax fields on which the states rely, so that they, the states, may take care of their own needs without outside help.

HIGH progressive rates of income and estate taxation have "equalized" individual incomes and wealth to such an extent that the sources of new equity capital depended on in the past for financing industrial expansion have begun to play out, forcing industry to look more and more to retained earnings and to borrowing to finance its growth. Double taxation of dividends has had a particularly devastating effect on equity capital.

Excessive income tax rates have taken a steady toll of that precious American intangible called "incentive"—incentive to work, to invest, to take risks. They have encouraged the multiplication of tax-exempt co-operative enterprises, with consequent narrowing of the nation's tax base. All these things are bad—very bad—for a free economy, but they are good for Socialism.

The examples which have been given here of socialist inroads upon our national life form only part of the full story of what has been happening. The plain truth which confronts us is this: that we, the American people, are fighting a two-front war on Socialism today, and the enemy on our home front is fully as dangerous to our way of life as the enemy we oppose on foreign fields.

Since the end of World War II the American people have poured over $32 billion of taxes into Federal programs of foreign economic and military aid. We have done this for two reasons: first, to help the war-stricken nations to their feet so they can join with us in building for a better and more prosperous world, and, second, to strengthen the defenses of the free nations against any totalitarian enemy that may strike against peace and freedom in the world. Totalitarianism is repugnant to freedom-loving people in whatever form it may appear, whether as Socialism with a dirty neck as in communist Russia, or Socialism in goose step as in Nazi Germany, or Socialism promoted by intellectual dead-end kids.

The Armor of Truth Is with Us

WE can win the fight again Socialism at home if we undertake an aggressive heads-up campaign to expose and defeat it, for truth is on our side.

The left-wing leaders have promised a great many things to the American people, and always they have implied that these things were to be free for the asking, because the rich would be made to pay for them. Many of these promised benefits have, indeed, been supplied, but the cost has already become so great that both the rich and the poor have had to be taxed to the hilt to meet it. A recent study by the economist, Dr. Rufus S. Tucker, shows that taxes both direct and indirect are taking a fourth of the income of those earning $3,000 to $4,000 a year. The three new tax bills passed in 1951 will increase this percentage considerably.

The Socialists have said, "We'll serve the people more adequately and

efficiently than private enterprise can." But the government has shown that when it grows in size and power it becomes inefficient and corrupt and it wastes the people's money, and the people don't like that. Senator Fulbright, who headed the Senate committee which exposed RFC mismanagement and corruption, nevertheless recently maintained, in addressing the annual meeting of the West Virginia State Chamber of Commerce, that that agency shouldn't be abolished "because there are many other Federal agencies just as bad."

Business activities now carried on by the government require subsidies from the taxpayers despite the special advantages which they enjoy in competition with tax-paying private enterprise. Even the Post Office—the oldest and largest Federal enterprise—operates at a deficit which grows larger each year, although its business volume increases. In contrast, the Bell Telephone system, which compares with the Post Office in business volume and in size of payroll, shows an annual profit even though it pays taxes equal to more than half of its income. The Bell system is constantly improving its physical facilities, its operating efficiency, and its services to an ever-growing consuming public. The Post Office, on the other hand, has made no basic change in its organizational structure in over a hundred years.

FINALLY, the Socialists have promised that they can give the people security without depriving them of freedom. But it will be well if the people take a very close look at what a Socialist means by freedom. The people of socialist Russia don't have freedom, nor did the German people have it under the national Socialism of Hitler. The people of socialist Britain already have grown impatient with the constant bureaucratic prying into their daily lives. Laski admitted that the establishment of Socialism in America will require the setting of "a new context for freedom," but his tortured analysis of the word's meaning would give little comfort to the average home owner, merchant, farmer, or worker living along the Main streets of our land. It is highly doubtful that these Americans, once made aware of the ways in which the socialist concept of "freedom" would affect their own lives, would willingly submit to greater sacrifices—whether in taxes or in toil—to speed the objectives of American Socialism.

When one confronts a left-wing spokesman with the fallacies and dangers of Socialism, the left-winger retorts, "But America today is enjoying such prosperity, such abundance as it never has had before, and don't we still have freedom?" There are two answers to this: First, the Socialists fail to take into account the fact that whatever economic progress we

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have made in the last two decades has been due, as it had been for a century and a half before that, largely to the enterprise, character, and organizing genius of our business and professional men, our farmers, and our workers under a free competitive system; second, as to freedom, it must be remembered that courageous men in Congress have fought hard and successfully against many socialist measures which, if they had been adopted, would have gone far to increase the dependence of the people on government and make them more subservient to the will of their rulers. In short, it is the things which American Socialism has been prevented from doing that represent the margin between the economic prosperity and the freedom we still enjoy and the economic stagnancy and political restraints which might have been.

As Americans, may we not resolve here and now to fight for our individual rights and freedoms: to oppose with all our energies the creation, in the United States, of a political oligarchy—whether or not it honestly calls itself a socialist government—with its hands forever in our pockets? May we not demand an end to this pretense of fighting Socialism, or its bloody brother—Communism—abroad, while developing and fostering these same principles and aims here within our own country?

Willing and Able

"It costs money to meet this nation's present and future electric power requirements—huge sums of money.

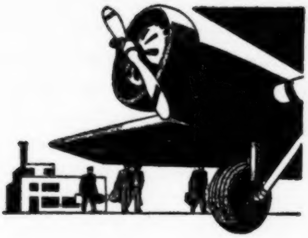
"During the last four years alone, the light and power industry has spent the neat total of $8 billion on generating and other facilities. The value of its operating plant is now well above $20 billion. And by 1953 that value will approach the $30 billion level.

"This should answer those who still believe that the government is the only agency which can carry out major expansion work in the power field—and that the groaning taxpayers are the only people who can pay for it. The truth is there is no need for the government to spend a nickel of our money on power development. Private enterprise, under public regulation, is 100 per cent willing and able to do the whole huge job.

"Furthermore, when private enterprise does it, we, the taxpayers, make a handsome profit—by contrast with having our money squandered when government does it. According to the latest statistics, taxes now take 23 per cent—nearly one-quarter—out of every last dollar of income of the electric utilities, and taxes will go higher yet. The socialized power systems either pay no taxes, or make relatively small donations in lieu of taxes—and all of them are tax-subsidized to the hilt.

"The moral is plain: We don't need government in the power business—or in any business. We don't want Socialism in this country."

—Excerpt *from "Industrial News Review."*



Airline Subsidies Can Be Eliminated

What are the possibilities of making our commercial airlines financially independent of mail subsidies? Should this be left to voluntary action? By using its discretion to withhold pay where carriers are not shown to be economically and efficiently managed, the Civil Aeronautics Board has a weapon by which it can compel mergers.

By HAROLD D. KOONTZ*

AFTER twenty-five years of Federal government support of the domestic trunk airlines through mail subsidies, there is a growing recognition in both government and industry that ways must be found to make the airlines financially independent. The recent study of the Senate Interstate and Foreign Commerce Committee of means for separating subsidy elements in air-mail payments has served to focus attention on the problem. The bill advanced by Chairman Edwin C. Johnson of that committee to fix air-mail rates considerably below current levels and to separate subsidy elements shows that this study may have reached the action stage. Likewise, the decision of the Civil Aeronautics Board, announced in July, to reduce mail payments of the Big Four carriers (American, United, Trans World, and Eastern) and to scrutinize payments to other carriers indicates that the spotlight on the air-mail subsidy problem is not one of mere political investigation.

There seems to be a feeling that, even though the subsidy elements found in the provision of airways may be justified for national defense, and those involved in furnishing airports are disappearing through increased user charges, the time has arrived to take a careful look at the necessity for air-mail subsidies. Any enthusiasm for eliminating mail subsidies is not likely to extend very soon to the local service, or "feeder," airlines because of the desire to continue experimenting with bringing air

*For personal note, see "Pages with the Editors."

service to small communities. Nor is it likely to extend soon to international air transportation where the American Flag carriers must probably be supported indefinitely as an instrument of national policy. But strong opinion exists that the time may be near when at least the domestic trunk lines should become self-supporting.

THE profitable record of the domestic trunk lines in the past two years may well give the impression that most of these carriers already have reached a position of financial self-sufficiency and have joined the ranks of American businesses able to care for themselves without specific government subsidy. It is true that the industry, comprised of sixteen companies, enjoyed a net operating profit of nearly $25,000,000 in 1949 and more than $62,000,000 in 1950. This might well be compared with the industry loss of $21,000,000 in 1947 and the World War II high profit of $33,000,000 in 1945.

Moreover, the improvement has been widespread in the industry. In 1947, only four of the sixteen carriers were in the black and only one of these earned more than a token profit. In 1949 and in 1950 only two of the carriers were in the red and, in 1950, virtually every carrier in the black earned net operating profits ranging from 5 to 20 per cent of sales and approximately the same percentages on gross assets used in the business.

To What Extent Do Airline Profits Depend upon Mail Pay?

BUT brief examination of the facts will disclose that the apparent prosperity of 1949 and 1950 is somewhat illusory. Although it is impossible to calculate accurately what a nonsubsidy mail rate would be, the effect of mail pay upon airline profits can be seen, at least to some extent, by assuming that a service mail pay would be equal, pound for pound, to the passenger rate, less the special costs that can be attributed to the passenger service. Since the domestic trunk-line air carriers are operated predominantly for the passenger service, this seems reasonable. And despite a detailed study of the problem made by one of the nation's largest accounting firms, no better answer was found. This accounting firm, Ernst & Ernst, in its report made in May to the Senate Interstate and Foreign Commerce Committee, found that on this basis a nonsubsidy mail rate amounted to 50 cents per ton mile in 1949.

Even though it is recognized that this figure was approximate and may be subject to much dispute, some progress can be made in clearing away the camouflage of air-mail payments by using it for analysis purposes. The revenues of the sixteen carriers have been recast, for 1949 and 1950, to reflect what the net operating profit would have been if a 50-cent mail rate had been used. This information is summarized in Tables I and II, pages 807 and 809, respectively.

THE effects of removing excessive air-mail payments are surprising, especially for 1949, which may certainly be regarded as a more normal year than 1950 with its defense-swollen traffic demand. Only the four largest airlines would have shown a

net operating profit had mail pay been at passenger fare levels less directly attributable passenger costs, as determined in the Ernst & Ernst report. Some of the results are startling. In the case of Capital Airlines, for example, a good operating profit becomes a large loss. And the sizable industry profit all but disappears. Even for prosperous 1950, the effect of placing mail pay on a 50-cent per ton mile basis is to show eight of the sixteen carriers, instead of two, in the red. Except for the Big Four, the profit record of the industry even in 1950, after adjustment for high mail pay, is not impressive.

Moreover, as is well known, 1950 was an unusually profitable year for the airlines, by far the most profitable in their history. Not only did the traffic demand generated by the Korean conflict and the defense program increase passenger load factors materially (from an industry average in normal 1948 of 58 per cent to 63 per cent in 1950), but improved utilization of equipment and plant helped to expand profits.

In general, then, during a period of record industrial profits and extraordinarily high profits in the railroad industry, the fact is that the airline industry, except for the four largest carriers, would not have been profitable in 1949 and not much more so in 1950 had it not been for mail payments well above the level of payments made for passenger service.

TABLE I

NET OPERATING INCOME BEFORE AND AFTER MAIL-PAY ADJUSTMENTS: 1949
DOMESTIC TRUNK AIRLINES—THOUSANDS OF DOLLARS

	Gross Revenues	Net Operating Income	Actual Mail Revenue: Total Mail Revenue	Actual Mail Revenue: Per Ton Mile (Cents)	Adjusted Mail Revenue*	Adjusted Net Operating Income
Sixteen Trunk Lines	459,783	24,625	45,031	110.2	20,432	26
Large Airlines						
American	99,404	9,442	5,379	60.5	4,441	8,504
United	87,011	4,975	6,483	62.4	5,192	3,684
Trans World	63,711	2,596	5,720	65.1	4,392	1,268
Eastern	68,854	3,945	3,247	66.4	2,442	3,140
Medium Airlines						
Northwest	27,361	(1,181)	2,963	116.6	1,270	(2,874)
Capital	26,906	1,319	4,567	428.2	533	(2,715)
Medium-small Airlines						
Delta	15,898	707	2,385	264.8	451	(1,227)
Braniff	14,527	477	2,321	216.4	536	(1,308)
National	12,984	53	2,024	374.1	271	(1,700)
Small Airlines						
Western	8,859	480	1,863	414.4	225	(1,158)
Chicago & Southern	8,583	800	1,800	345.9	260	(740)
Midcontinent	7,515	540	1,467	468.1	156	(771)
Very Small Airlines						
Northeast	5,793	65	1,565	1,594.1	49	(1,451)
Continental	5,248	(313)	1,379	662.3	105	(1,587)
Colonial	4,445	216	1,226	1,223.3	50	(960)
Inland	2,683	505	641	546.7	59	(77)

*Adjusted on basis of 50 cents per ton mile.
Source: Civil Aeronautics Board, *Recurrent Report of Financial Data.*

Furthermore, the very fact that the four largest carriers made respectable profits in both 1949 and 1950, regardless of the level of mail pay, leads to the belief that there must be some factors which account for financial self-sufficiency. Since it is clearly in the public interest to abolish subsidies of privately owned businesses as soon as possible, and since there exists a strong conviction in some quarters that transportation co-ordination requires the removal of subsidy elements in all segments of the industry, these factors should clearly be searched out and made to influence both regulatory and private business policy.

Do Economies of Size Explain Financial Self-sufficiency?

ON the record, one might be led to the conclusion that the economies inherent in size explain the problem of airline profitability. Only the four largest carriers—American, Eastern, United, and Trans World—appear to have the ability to make respectable profits without mail pay assistance. There is a wide difference in size among the sixteen trunkline carriers. As measured by gross revenues for a fairly normal year (*e.g.*, 1949) or by the volume of ton miles of service rendered, the four smallest airlines were approximately one-twentieth the size of the four largest; the fifth and sixth largest airlines in the industry were one-third the average size of the Big Four; and the average size of all of the twelve smaller companies was approximately one-seventh the size of the four largest carriers.

But one does not find that the lower costs normally attributed to size explain airline profitability. Using expense per available ton mile[1] as the best single measure of airline cost of production, direct and indirect costs have been calculated for 1949 for the sixteen carriers and are summarized in Table III, page 811. As will be noted, the pattern of costs, as related to size, is not conclusive, except in the case of the smallest four or six airlines.

While these data are for a single year, examination of other recent years indicates that they are representative. They show that the very small airlines are doubtless at a clear disadvantage on account of diseconomies of size. But the cost record reveals that the economies of size alone do not explain the profit record of the four largest airlines. As a matter of fact, the lowest-cost domestic airline was National, which had revenues only one-eighth those of American, and the medium and medium-small airlines had generally as low costs as the Big Four.

THIS is not to say that there *should* not be more evidence of economies of size. Even the largest domestic airlines are not large as big business goes. It is difficult to conceive that most of the economies of size have been utilized when airlines reach the size of the small or medium-small airlines listed in Table III.

It is certainly open to question that

[1]The expense per available ton mile is the cost involved in offering for sale one ton of weight carried for one mile. The available ton mile should be distinguished from the revenue ton mile which is those available ton miles of service sold for revenue.

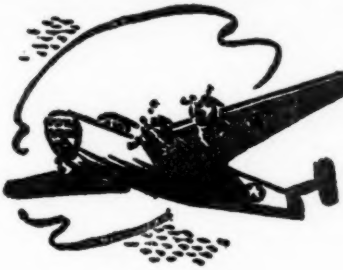


TABLE II

NET OPERATING INCOME BEFORE AND AFTER MAIL-PAY ADJUSTMENTS: 1950
DOMESTIC TRUNK AIRLINES—THOUSANDS OF DOLLARS

			Actual Mail Revenue			
	Gross Revenues	*Net Operating Income*	*Total Mail Revenue*	*Per Ton Mile (Cents)*	*Adjusted Mail Revenue**	*Adjusted Net Operating Income*
Sixteen Trunk Lines	524,109	62,521	46,311	100.0	23,156	39,366
Large Airlines						
American	114,654	22,919	5,917	58.6	5,047	22,049
United	95,711	14,218	7,342	59.0	6,223	13,099
Trans World	73,180	6,686	5,853	64.2	4,556	5,389
Eastern	77,416	9,502	3,372	67.3	2,505	8,635
Medium Airlines						
Northwest	33,619	(2,895)	4,411	171.1	1,289	(6,017)
Capital	29,816	2,237	3,817	249.1	766	(814)
Medium-small Airlines						
Delta	18,870	2,152	1,770	141.5	625	1,007
Braniff	15,702	2,104	2,194	167.6	655	565
National	16,949	2,470	1,748	274.4	319	1,041
Small Airlines						
Western	11,182	1,187	1,374	162.9	422	235
Chicago & Southern	9,146	704	1,747	287.4	304	(739)
Midcontinent	8,039	688	1,659	502.2	165	(806)
Very Small Airlines						
Northeast	6,361	121	1,519	1,253.1	61	(1,337)
Continental	6,222	384	1,729	839.6	103	(1,242)
Colonial	4,177	(386)	1,143	1,207.3	47	(1,482)
Inland	3,065	430	716	531.3	67	(219)

*Adjusted on basis of 50 cents per ton mile.
Source: Civil Aeronautics Board, *Recurrent Report of Financial Data.*

there should be so little difference in costs per available ton mile between airlines the size of Braniff or Western and those the size of American or United which are seven to fourteen times as large. One gets the impression that costs are often gauged to ability to pay and that cost control is the more effective the more the need for it. But, in any case, one cannot find the answer to airline self-sufficiency in the economies of large-scale operation, even though the four smallest airlines appear to be so small as to offer little hope for low enough costs to promise self-sufficiency.

Airline Profitability Determined Primarily by Revenue Load Factors

IT is not necessary to search far to find the key to airline profitability. On the basis of the records for 1949 and 1950, as well as on the record of profits during World War II, the most important single factor explaining airline financial self-sufficiency is the revenue load factor.[2] Like the electric utility industry, the railroad industry, and other service-producing industries, the ability to produce at low costs and sell at a reasonable price must be accompanied by a good load factor to produce profitable operation. It has been well said that there is probably no business product so perishable as an empty airline seat. The effect of a small change in airline load factor can have a considerable effect on earnings. For example, in the case of Trans World Airlines, a change during a year of one percentage point in revenue load factor is the equivalent of earnings of approximately 50 cents per share on common stock.

As will be noted from Table IV, page 815, all of the four largest airlines except Eastern enjoyed, during both 1949 and 1950, load factors considerably higher than the other trunkline carriers, with the lone exception of Inland's load factor in 1949. Load factor assumes even greater significance when it is realized that in 1950 every airline, without exception, would have made a moderate to large net operating profit, even after adjustment for mail pay, if it had been able to operate with American's high revenue load factor. Even in 1949, every airline, except the four smallest airlines, would have been in the black, after making an adjustment for excessive mail pay, if each had enjoyed the load factors of American, United, or Trans World. Interesting, too, is the fact that Eastern in 1949 and 1950, and National, Delta, and Braniff in 1950 were able to show operating profits not dependent on mail pay with load factors well below the high load factors experienced by American, United, and Trans World.

EVEN though the low-cost records of such carriers as Eastern and National may seem to argue strongly for efficiency as the key to independent profitability of the airlines, the evidence seems to point strongly in the direction that the industry, in general, must depend upon a reasonably high revenue load factor to make profits without the assistance of mail-pay subsidies. This ability on the part of certain carriers to sell a higher percentage of ton miles or seat miles produced could be due to more effective sales promotion or outstanding service differences.

But examination of advertising expenditures and policy, sales promotion, service standards, and similar factors is not persuasive of this possibility. The real explanation of favorable load factors seems to lie in the size and density of the market facing the air carriers; and this is a matter of route pattern which has so largely been determined by action of the Federal government in granting the original mail contracts and the later route certificates.

[2]The percentage of available ton miles actually sold.

How the Character of the Market Determines Load Factor

UNLIKE those businesses whose right to enter markets is not controlled by public authority, the airlines, of course, have their market largely determined by public authority through the Civil Aeronautics Board's control over routes. The strength of these routes is not only important in terms of the *total* volume of traffic, but has even more bearing upon the *density* of traffic movement, the factor of particular significance in determining load factor.

An indication of density of traffic movement can be obtained from the results of the passenger traffic surveys made each March and September by the Civil Aeronautics Board. These surveys, by actual count, summarize for those sample months the movement of passenger traffic between every point served by the airlines in the United States. While only passenger traffic is so counted, experience with transportation indicates that mail, express, and freight of the kind handled by the airlines move in striking correlation to passenger traffic.

THE surveys dramatize the importance of relatively few cities as traffic generating points and show how few of the many thousands of pairs of cities carry a large percentage of the traffic.

For example, the survey made for March, 1949, showed that only 10 of the 430 cities served by domestic trunk, feeder, and territorial

TABLE III

OPERATING EXPENSES PER AVAILABLE TON MILE: DOMESTIC TRUNK-LINE CARRIERS, 1949 (CENTS PER AVAILABLE TON MILE)

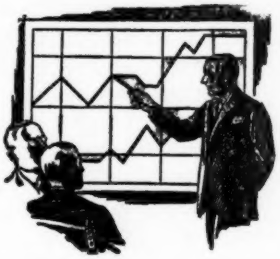
	Direct Operating Expense	*Indirect Operating Expense*	*Total Operating Expense*
Sixteen Trunk Lines	13.8	14.9	28.7
Large Airlines			
American	13.4	14.5	27.9
United	13.3	15.7	29.0
Trans World	15.1	16.0	31.1
Eastern	13.1	11.8	24.9
Medium Airlines			
Northwest	14.4	16.2	30.6
Capital	13.3	14.9	28.2
Medium-small Airlines			
Delta	13.4	15.2	28.6
Braniff	15.0	15.5	30.5
National	12.7	11.9	24.6
Small Airlines			
Western	15.5	16.3	31.8
Chicago & Southern	14.2	18.9	33.1
Midcontinent	15.2	19.8	35.0
Very Small Airlines			
Northeast	22.1	22.3	44.4
Continental	15.3	17.8	33.1
Colonial	17.8	20.3	38.1
Inland	16.4	22.1	38.5

carriers generated 53 per cent of the passenger miles, that 25 cities generated 72 per cent of the passenger miles, and 100 cities accounted for 93 per cent of the traffic. Similar results have been found in other survey months. With respect to the density of traffic on comparatively few route segments, the March, 1949, survey disclosed that 100 pairs, of a total of approximately 15,000 pairs of cities served, accounted for 47 per cent of the passenger miles.

OBVIOUSLY, those airlines which serve the most heavily traveled traffic routes can obtain the most profitable revenue load factors. Heavy travel between two points permits the scheduling of large and efficient aircraft at a high frequency and on a nonstop basis. Not only does the high frequency tend to attract business, but operation on a nonstop basis has a beneficial effect on loads since it avoids the inevitable loss of revenue space when passengers must be accommodated en route. It is difficult enough to schedule seats to meet, at reasonably good load factors, the variations in passenger demand by days of the week and times of day. But when, in addition, the variations occasioned by trying to piece passenger trips together on a multistop schedule are added to variations of time, the task of giving service and of maintaining a profitable load factor is difficult indeed. Just as most of the few top pairs of cities lend themselves to high volume, nonstop, scheduling, most of the other 15,000 pairs of cities require multistop scheduling between points of low traffic density.

AS might be expected, the four largest airlines have by far the strongest routes, as measured by the number of the best traffic generating cities and the best pairs of cities on their routes. The March, 1949, survey found that the Big Four had on an average 7.5 of the top 10 cities on each route and 35 of the top 100. (American had 40.) At the same time the smallest four airlines had an average of 1 of the top 10 and 8 of the top 100 cities per route, and the 12 smaller trunk lines (*i.e.,* all airlines other than American, United, Trans World, and Eastern) had, on the average, 2 of the top 10 cities and 13 of the top 100. The disparity between routes is even more pronounced when the more meaningful pairs of cities are considered. The Big Four had an average per company of 35 (American 47 and United 42) pairs of the most productive 100 pairs of cities; the smallest four airlines had an average of only 0.5 pair of the best 100 on their routes; and all airlines other than the Big Four had an average of only 4 of the top pairs per company.

Thus, there is almost a direct relationship between profitability and the presence of a high number of the top 100 pairs of cities out of 15,000 pairs. Moreover, this relationship is further strengthened by the relatively greater proportion of low-density route segments operated by the twelve smaller carriers. Analysis of the March, 1949, survey indicates that the smaller airlines served proportionately more of the low traffic generating cities than the big airlines and, of course, had to generate



Importance of Load Factor in Air Traffic

"It is not necessary to search far to find the key to airline profitability. On the basis of the records for 1949 and 1950, as well as on the record of profits during World War II, the most important single factor explaining airline financial self-sufficiency is the revenue load factor. Like the electric utility industry, the railroad industry, and other service-producing industries, the ability to produce at low costs and sell at a reasonable price must be accompanied by a good load factor to produce profitable operation."

a higher percentage of their business from these low-density segments.

Contrary to popular belief, the twelve smaller carriers do not have routes which are more competitive than those of the Big Four. Examination of the average number of carriers serving each pair clearly shows that the routes of the Big Four, with the possible exception of Eastern, are more competitive than the routes of eleven of the other twelve airlines, Capital Airlines alone having a somewhat more competitive route.

It appears, then, that the real difference among the carriers, which tends to give the four largest the most promise of financial self-sufficiency and the other carriers the least promise, is in the character of their routes. Given a route structure like that enjoyed by American or United, with a good number of the high traffic density pairs of cities on it, and with only half of the total traffic obtained from among the lower-density route segments, and it appears that an airline may become financially self-sufficient if it has a fair degree of cost control and a reasonably effective management. Add to this the type of cost control which National and Eastern have put into effect and one should have an airline easily able to operate profitably without the benefit of government subsidy.

Elimination of Need for Subsidy A Matter of Government Policy

In most businesses faced with this kind of market problem, the solution would be one of business policy. Businesses whose markets are not

controlled by government policy would attempt to obtain a more effective market through an increased sales coverage, a higher advertising budget, or a larger sales promotion program. If this course were not successful or feasible, attempts would be made to improve markets through merger with other firms.

But in the airline business, the market is largely prescribed by public authority through the power over routes granted by the Civil Aeronautics Act of 1938 to the Civil Aeronautics Board. Likewise, control over mergers rests with the board. In the past it has not been sympathetic to airline mergers, as is evidenced by the complete lack of any important domestic trunk-line mergers since the Civil Aeronautics Act was passed.

With the solution of the problem of air-mail subsidy so much a matter of route structure, the answer must be obtained by recognition of the problem by the government agency concerned, by the development of a plan for solving the problem, and by devising procedures to make the plan effective. For if a way can be found to eliminate the need for subsidies, it should certainly be to the interest of both government and business leadership to pursue it. It is doubtless true that the air-mail subsidy is a small price to pay for a first-class airline system, but, under the American system of private enterprise, government subsidy should be the last resort for saving an economic activity necessary to the national welfare.

THE alternatives to continuing the present subsidy program seem to be three. The Civil Aeronautics Board might extend the routes of the weaker carriers to include more of the high density traffic routes; but to do this would weaken the entire industry through excessive competition. The board might attempt to redraw the domestic airline route structure, reshuffling and reallocating the routes to fewer companies; but such a program would be extremely difficult to administer, is of questionable legality, and would disrupt the industry.

A third alternative open to the board, while not easy, seems to offer the most fruitful possibilities. The Civil Aeronautics Board could and should force upon the existing carriers a program of mergers which would result in fewer large airline systems, each with a strong route including access to enough high density traffic routes to make possible profitable operation in normal times without subsidy.

IN pursuing this course of action, a starting point could be the present routes of the Big Four which appear able to operate without mail subsidy. These carriers normally handle approximately 74 per cent of the traffic of all sixteen domestic trunk-line companies. If the character and size of the routes of the Big Four are any criterion, their high percentage of the market indicates that a recast airline industry could not well support more than a total of six companies, all of the approximate size of the four big carriers. In this connection it is interesting how, along with a little new route mileage along such currently noncompetitive routes as Los Angeles-Denver-Chicago, the sixteen present airlines could by

proper mergers be reduced to six strong carriers, including two new carrier systems, one a strong transcontinental carrier similar to United and the other a strong north-south carrier similar to Eastern.

For example, if a merger were forced among Northeast, Colonial, National, Delta, Chicago and Southern, and Capital (except its Chicago-New York route), an airline route of Eastern's strength would emerge. Also, if a merger could be accomplished among Northwest, Western, and Inland, plus Capital's Chicago-New York route and a new West coast-Denver-Chicago route, the result would be a transcontinental carrier with a route as strong as United's. If Continental were assigned to Trans World, along with most of Braniff's routes, and Midcontinent allocated to Eastern with certain of Braniff's routes, the result would be to strengthen Eastern and Trans World whose route patterns are now slightly inferior.

One of the first objections that might be raised to such a plan of mergers is the danger of reducing competition in the airline business. It is possible that there might be some lessening of competition at the lower traffic generating points, but most of these are now served by one carrier and others can hardly justify the luxury of competitive services in a

TABLE IV

Net Operating Profit after Mail-pay Adjustment and Revenue Load Factors: 1949 and 1950
Domestic Trunk-line Air Carriers

	Net Operating Profit Thousands of Dollars*		*Revenue Load Factor Per Cent*	
	1949	*1950*	*1949*	*1950*
Sixteen Trunk Lines	26	39,366	53.4	57.2
Large Airlines				
American	8,504	22,049	59.4	66.8
United	3,684	13,099	57.3	59.1
Trans World	1,268	5,389	58.4	61.0
Eastern	3,140	8,635	46.2	52.6
Medium Airlines				
Northwest	(2,874)	(6,017)	53.3	53.6
Capital	(2,715)	(814)	49.3	49.7
Medium-small Airlines				
Delta	(1,227)	1,007	44.6	51.1
Braniff	(1,308)	565	48.2	49.2
National	(1,700)	1,041	37.5	47.2
Small Airlines				
Western	(1,158)	235	49.5	56.7
Chicago & Southern	(740)	(739)	51.0	54.9
Midcontinent	(741)	(806)	52.5	50.9
Very Small Airlines				
Northeast	(1,415)	(1,337)	47.0	51.7
Continental	(1,587)	(1,242)	42.8	45.4
Colonial	(960)	(1,482)	47.6	43.0
Inland	(77)	(219)	58.6	49.5

*After mail-pay adjustments shown in Tables I and II.

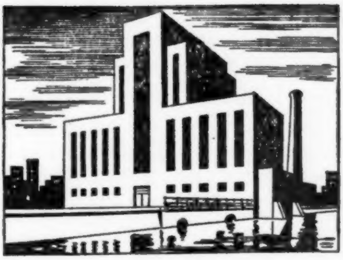
publicly regulated and supported industry. But since the proposed mergers are largely end-to-end mergers, there would be no reduction of competition in the major traffic markets of the country. As a matter of fact, as can be ascertained from studying the effects of such a merger program on the 100 top traffic pairs of cities, between which nearly 50 per cent of the airline traffic flows, the result would be to slightly increase the level of competition. At present the average number of carriers serving each of the top ranking pairs of cities is 2.2. After even so complete a merger program as suggested above, the average number of carriers serving each of the pairs would be approximately 2.7.

NATURALLY, if the Civil Aeronautics Board were to undertake any such merger program, it should at the same time review the need for airline service at many points in the country. Of the 430 points served by all domestic carriers in 1949, 100 generated 93 per cent of the traffic and 200 generated 98 per cent. While the trunk-line carriers only served 324 of the 430 cities, the remainder being served by the feeder lines and the territorial lines, there is some question as to the economic need for service to fully half of the cities now certificated for airline service. Perhaps it is time for the board to review its policy of too generously passing out airline service to communities, many of which can hardly justify it either from an economic or a public interest point of view.

Moreover, if a merger program is to be undertaken, it cannot be on the basis of that attempted for the railroads by the Transportation Act of 1920. That consolidation program was placed on a voluntary basis, and experience has proved that this is ineffectual because of the lack of motive for managements to allow themselves to be eliminated through consolidation.

If a program of mergers is necessary to remove the need for subsidies on the part of the trunk-line air carriers, as seems so clearly to be the case, it should not long be left to voluntary action. Unlike the case of railroad consolidation, the Civil Aeronautics Board has a weapon which it can use to force mergers if it will. Before granting mail-pay subsidies, the board is charged by law to assure itself that the carriers are economically and efficiently managed. Its power to withhold mail pay is highly discretionary. And a threat to withhold pay would seem to be an ample tool to force desirable airline mergers.

IT appears to be the duty of the Civil Aeronautics Board to study this means of eliminating dependence of the domestic airline industry on mail pay. It must come up with a plan and it must let the industry know what kinds of merger programs will be approved. There is growing in the industry a conviction that mergers may be the answer to the subsidy problem. According to the aviation press, the board is studying this problem and there may soon be some policy determinations along these lines. It will be interesting to see whether this regulatory commission will attack the problem completely and decisively.



Hardest Working River in The Nation

Electric utility and paper companies along the Wisconsin river have proved that river control need not be provided by government. Under state regulation a series of 21 controlled reservoirs and 26 hydroelectric plants, privately financed, have harnessed the river and put it to work for mankind.

By M. H. FRANK*
EXECUTIVE VICE PRESIDENT, WISCONSIN POWER & LIGHT COMPANY

A SHORT distance upstream from the fabled Dells are two new dams across the Wisconsin river. The generators in the massive brick powerhouse atop Petenwell dam, completed in the summer of 1949, draw 20,000 kilowatts of electric power from the river. The Castle Rock dam, between Petenwell and the Dells, completed just eight months ago, produces 15,000 kilowatts.

Taken by themselves, these two dams may not be news, but they do not stand alone. Petenwell and Castle Rock are the twenty-fifth and twenty-sixth hydroelectric developments on the Wisconsin river, and with the other twenty-four, up and down the river, they have made the Wisconsin the "hardest working river in the nation."

Perhaps you're skeptical and ask, "What about the Tennessee and the Columbia river developments? What about the other mammoth Federal government power projects?" Well, the people of Wisconsin back up their claims with these arguments:

1. The machines installed in the hydroelectric plants along the river develop 95 per cent of the ultimate capacity of these sites.

2. The reservoir system bolsters minimum flow, thus insuring the survival of fish, and in the same way lowers maximum flow so that there has been no serious flood along the Wisconsin for decades.

*For additional personal note, see "Pages with the Editors."

3. Each year the power companies on the Wisconsin river contribute heavy taxes to local, state, and Federal governments. For the year 1950 the business-managed tax-paying utilities contributed over 19 cents out of each revenue dollar. TVA contributed 4.27 cents out of each revenue dollar for the year 1950. TVA sells energy for less average price per killowatt hour than the taxes paid per kilowatt hour by business-managed tax-paying companies on the Wisconsin river.

4. All of the 21 reservoirs in the Wisconsin river system double as popular recreational areas, providing swimming, boating, fishing, and hunting facilities which are visited yearly by hundreds of thousands of vacationers.

5. Stagnation and pollution problems have been lessened; the reservoirs have a complete change of water at least once a year. In addition, fast-flowing water in passing over the dams picks up oxygen, the washrag rivers use to scrub themselves.

6. Special facilities for weather, water, and soil research have been made an integral part of the river system, and five separate organizations now carry on such research activities in the river valley.

THE organization primarily responsible for this vast development is the Wisconsin Valley Improvement Company, a unique cooperative association of private water-power users.

But to understand how the Wisconsin river plan was conceived and made effective, it is necessary to review its history.

The Wisconsin river rises in Lac Vieux desert at the Wisconsin-Michigan line, and winds its way 450 miles to its confluence with the Mississippi at Prairie du Chien. In that distance the river drops 1,050 feet. Its drainage area is approximately 13,000 square miles.

In the early 1800's, the vast virgin forests of northern Wisconsin attracted swarms of pioneers. Trees by the millions—mostly pine—were felled and trimmed, and since water was the only effective means of transportation, these logs were hauled or skidded to the banks of the Wisconsin river and other streams and floated to the mills.

But rivers could not be depended on the year 'round. Logging crews had to work hardest in the winter, for the only time the water level was high enough to move the logs was after the spring rains and thaws.

As the years passed it was found that even the spring floods were not always sufficient to float the logs downstream. Often the logs piled up in the rocky upper reaches of the rivers or on the sand bars farther south. The first solution attempted was to build dams across the mouths of tributary streams. A number of such dams were built, some temporary log structures, others of more permanent construction. The lakes formed by the dams thus became storage reservoirs from which extra water could be released into the rivers by opening the floodgates at the time of the spring log drive.

THUS the beginnings of river control are seen in the first small log dams built near sawmill sites in the middle 1800's. The first of these

A Self-liquidating River

" . . . the Wisconsin river works hard and it works effectively. It serves those who live near it and, indirectly at least, it serves the people of the entire state. This it has done for forty years. And it has paid and is paying its own way. The Wisconsin boasts a comprehensive, integrated, substantially complete, privately financed, and state-regulated river development. Every year, the Wisconsin pays its taxes, local, state, and Federal."

dams was located at Wausau in 1840, at Mosinee in 1842, at Stevens Point in 1845, and at Merrill in 1847. Between 1850 and 1890, nine more storage dams were built, all of them controlled by individual companies. But the reservoirs had to be combined into a single system if they were to be effective.

Thus, in 1907, by an act of the Wisconsin legislature, the Wisconsin Valley Improvement Company was born. This is the organization responsible for the multipurpose development one sees today when he tours the Wisconsin river valley. To begin its operation, the company took over and rebuilt all of the original logging dams on the headwater lakes of the Wisconsin. At that time there were nine of these controlled-lake reservoirs, but more were needed. Consequently, in 1917, the company built the first of its large artificial lakes, the Rice Reservoir, also known as Lake Nokomis, on the Tomahawk river. In 1922, Spirit Reservoir was built. In 1926, Willow Reservoir was constructed on the Tomahawk river, and, in 1935, Rainbow Reservoir, on the Wisconsin river, northwest of Rhinelander. In 1937, the Eau Pleine Reservoir, southwest of Mosinee on the Wisconsin, was finished. In addition to these five large artificial reservoirs, seven more controlled-lake type reservoirs have been added since the company began operations, a total of 21 reservoirs. Each is equipped with a permanent dam.

THERE are a number of interesting side lights to the construction and operation of certain reservoirs. At Burnt Rollways in northern Wisconsin, a marine railway is maintained

which transports boats over the dam so that excursion parties may proceed from the lower into the upper Eagle river chain and back again. Burnt Rollways received its name from an early lumbering operation in which an entrepreneur started his business on a shoestring. Some of his employees, disgruntled by the uncertain and low pay they received, set fire to the rollways on which the logs were piled waiting for the spring floods and burned them all.

Burnt Rollways isn't the only reservoir to have a romantic name. In addition to these already mentioned, the following lakes serve the state: Twin Lakes, Buckatahpon, Long-on-Deerskin, Little Deerskin, Lower Nine Mile, Seven Mile, Sugar Camp, Little St. Germain, North Pelican, South Pelican, Vieux Desert, Minocqua, and Squirrel Lake.

The Wisconsin Valley Improvement Company also has begun acquisition of land for an ambitious new project, a reservoir which will be second in size only to Lake Winnebago, the state's largest body of water. This reservoir, to be named for the company's most recent past president, George W. Mead, will increase the system's present storage capacity by 50 per cent. The present storage capacity of the reservoir system is 17 billion cubic feet. If this quantity of water were frozen into a column three feet, nine inches square, it would reach from the earth to the moon.

ELECTRIC power production along the river has grown with commensurately rapid strides since the reservoir system was originated. With a larger, dependable supply, the companies co-operating in Wisconsin Valley Improvement Company have rebuilt and enlarged most of the old dams and have added ten new ones. The Prairie du Sac dam of the Wisconsin Power & Light Company is the largest in the state. At Grandfather Falls, a series of rapids rather than a falls, the Wisconsin Public Service Corporation replaced the old low-head dam with a pair of huge penstocks (pipes) that carry the entire river clear around the rapids and drop it onto the waterwheels in a single 95-foot leap. In 1946, one of the better recent water years, a total of 764,000,000 kilowatt hours of electricity was produced by hydroelectric installations along the river. This amount of energy could have been generated by steam turbines, of course, but it would have taken about one-half million tons of coal to do it.

The power dams along the river receive two important services from Wisconsin Valley Improvement Company. The first is flood protection. During peak flows, the reservoirs above the plants make possible a delaying action which considerably decreases the amount of water to be released through the spillways of the dams.

The second major service is to provide a steady and sustained flow to the plants. Records made at different times in the year indicate how important this can be. During one period of very low water in July and August, 42 per cent of the flow was from storage. In some winter months water from the reservoirs comprises 50 per cent or more of the total flow of the river.

Through the release of storage water as needed, the plants are able to maintain constant pond levels, resulting in higher operating efficiency. If the Wisconsin Valley Improvement Company had not created facilities for storing and releasing water, the power companies on the river would require additional stand-by steam plants to be utilized in periods of low water.

Another important aspect of the Wisconsin plan for river development is its research program. At the present time, the U. S. Weather Bureau, the U. S. Geological Survey's research surface water division and ground water division, the U. S. Department of Agriculture Soil Conservation Service, the University of Wisconsin's experiment station, and the Wisconsin Valley Improvement Company all carry on research along the river valley.

Winter hydrology research centers around Rainbow Reservoir. There, wind direction and velocity are recorded and precipitation is measured in three ways. Relative humidity and temperature are recorded continuously, as well as temperature one inch, three inches, and six inches below ground. Soil temperatures and moisture are measured daily, at intervals down to a depth of five feet, by a thermocouple and gypsum block installation. A 48-inch land evaporation pan has been installed to supplement an 11-year record taken from lake evaporation pans.

Still another important aspect of the program, though not an integral part of it, is "Trees for Tomorrow, Inc.," an agency to promote reforestation and scientific tree cropping throughout the river valley. When Wisconsin's virginal forests were felled and the land cleared, many natural ground reservoirs were destroyed. Rain water runs quickly off of cleared land. To meet the problem thus created, one of the obvious remedies is to put trees back onto land which is now idle, or which will not support farming.

For over twenty years the member companies of the Wisconsin Valley Improvement Company have been reforesting their lands. Thirty-five million trees have been planted on 300,000 acres, and the new projects are being launched continually.

"Trees for Tomorrow," which was started in 1944, assists farmers and other private landowners to plant and harvest trees as a crop. Today, through its efforts, over 3,500,000 trees have been planted on private, noncompany lands, and scores of Wisconsin schools now maintain forests as living conservation demonstrations and future sources of income.

The Wisconsin Valley Improvement Company, to which every valley company that uses water power to generate electricity or turn waterwheels must belong, has eleven stockholders. Three are public utilities, the Wisconsin Public Service Corporation, serving northeastern Wisconsin, the Wisconsin Power & Light Company, whose lines reach into over 320 towns and rural communities in the central and southern part of the state, and the Wisconsin River Power Company, owner of the new dams at Petenwell and Castle Rock. The other stockholders are paper companies.

These are: Rhinelander Paper Company, National Container Company, Marathon Corporation, Mosinee Paper Mills, Consolidated Water Power & Paper Company, Nekoosa-Edwards Paper Company, Tomahawk Paper Company, and Whiting Plover Paper Company.

The Wisconsin Valley Improvement Company is financed entirely by private capital. There is no government subsidy. The company is a non-profit organization, whose costs of operations are totaled every six months and paid by the stockholders. These charges are apportioned to each dam on the river in direct ratio to the head developed there and the maximum amount of water that can pass through its waterwheels.

The investment of the Wisconsin Valley Improvement Company in its property now totals well over $2,000,000. The company, like any other privately owned corporation, pays heavy local, state, and Federal taxes. Of the tolls collected each month by the company, 31 per cent goes for taxes.

How important is the Wisconsin river development? Well, without power from the river, the Wisconsin river valley could not furnish a decent living for half of its population, which now numbers over 615,000. Part of north-central Wisconsin is poor land. Dairying is the most intensive kind of farming the soil will carry. Settlers cleared much land which should never have been farmed at all. The only important mineral resource of the area is a single deposit of roofing gravel. But abundant water power gives the valley families two kinds of pay envelopes, one in dairying and one in a factory, most often in a paper mill.

Yes, the Wisconsin river works hard and it works effectively. It serves those who live near it and, indirectly at least, it serves the people of the entire state. This it has done for forty years. And it has paid and is paying its own way. The Wisconsin boasts a small profit on the risk capital stantially complete, privately financed, and state-regulated river development. Every year, the Wisconsin pays its taxes, local, state, and Federal. Every year, the Wisconsin stays where it belongs and maintains a remarkably even flow while doing it. Every year, the Wisconsin provides fine recreation areas. Every year, the Wisconsin develops a generous flow of dependable, economical electric power to the industries, farms, and homes along its banks. Every year, the Wisconsin pays a small profit on the risk capital which has been invested to achieve all this. The Wisconsin river is truly the servant of all the people of the state.

"Of course, it's easier to bow the knee as long as the hand is filled. But that attitude would never have won our independence back in 1776. And it might be said that it will not maintain our internal independence and freedom if we continue to look more to government and less to ourselves for the solution to our problems."

—EXCERPT *from Davis (California Enterprise)*

Utility Cases before the U. S. Supreme Court

A review of some of the important utility cases recently decided, or likely to be decided soon, by the highest Court.

By JOSEPH E. FINLEY*

Two decades ago, the U. S. Supreme Court docket was heavily weighted with important public utility cases. The advent of Federal activity in the field of public power projects, loans, and grants-in-aid of such activity, and the controversial regulation of holding companies, not to mention miscellaneous rate reduction and valuation cases—all these factors combined to make the Court look long and hard at the utilities.

Within the past few years, all this has been changed. The public power legislation of the New Deal and the regulatory reforms have been tested and accepted. Rate case problems were largely thrown back into the laps of the regulatory commissions, under a progressive line of decisions, which culminated with the Hope Natural Gas Company Case in 1944. During the past year, and during the current term which began last October, only a handful of cases challenge serious public utility attention. But such as they are, they merit the attention given them. This is particularly true of two matters likely to be decided during the current term—the District of Columbia transit radio case and the so-called Roanoke Rapids Case, not yet filed for appeal. A third outside possibility, more likely to go over to the next October term, is the celebrated Phillips Petroleum Company Case now being appealed from the Federal Power Commission to the District of Columbia Court of Appeals.

How about last year? Aside from the public utility antistrike law cases

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(which knocked out a Wisconsin decision attempting to outlaw strikes by public utilities)[1] only two major decisions strictly within the field of utility regulation found their way to the highest Court. In both of these, the state commissions scored two notable victories before the U. S. Supreme Court in the uncertain, shifting struggle for their right to regulate the natural gas industry. But the pipeline companies that carry natural gas to 15,000,000 users will have to wade through several more legal ordeals before a clear line is finally drawn between the exact authority of the state agencies and the Federal Power Commission.

THE states can be sure now they have the authority to require an interstate pipeline to obtain a state certificate of convenience and necessity before selling direct to industrial consumers in any state. At the producing end of the process that takes gas from the ground to the burner tip, the states have won the right to set their own minimum wellhead prices. At least this much has been settled by the rulings of the nation's high justices. But the implications of those rulings, how far they can be extended, remain unsettled.

When the Michigan Public Service Commission won its case from Panhandle Eastern Pipe Line Company, it brought to an end the company's 6-year battle, in and out of the courts, and before the Federal Power Commission, for the right to sell direct to industrial consumers in the Detroit area.[2] Panhandle started its expansion efforts back in 1945 by making a contract to supply natural gas direct to the Ford Motor Company's Dearborn plant. Now, the Court says, the Michigan commission has at least the right to examine the situation, in the process of certification proceedings, before allowing such direct sales to take place.

As a result, every interstate pipeline must now face the possibility of even being denied a certificate of public convenience and necessity for selling within a state on terms determined by the regulatory commission.

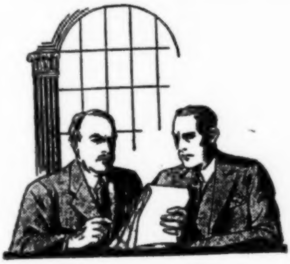
PANHANDLE, which had been supplying all the natural gas for the Michigan Consolidated Gas Company for its Detroit sales, made its decision to expand after the war. The Ford contract, secured in October of 1945, was the first step. Then it needed permission to lay and operate its pipelines into the Dearborn plant, and, to get it, offered to pay the city of Detroit for this right.

Since Michigan Consolidated, already committed to general utility service in the Detroit market, faced a serious loss of business, it moved immediately to stop Panhandle's market expansion with a cease-and-desist order from the state commission. Without attempting to get a certificate, Panhandle moved into a state trial court and obtained an injunction against the commission's order on the legal ground that it was a prohibition on interstate commerce.

The lower court injunction against the public service commission was

[1] Amalgamated Association of Street, Electric Railway & Motor Coach Employees of America *v.* Wisconsin Employment Relations Board, 88 PUR NS 165.

[2] Panhandle Eastern Pipe Line Co. *v.* Michigan Public Service Commission, 89 PUR NS 1.



Regulatory Appeal Is Falling Off?

"Two *decades ago, the U. S. Supreme Court docket was heavily weighted with important public utility cases. The advent of Federal activity in the field of public power projects, loans, and grants-in-aid of such activity, and the controversial regulation of holding companies, not to mention miscellaneous rate reduction and valuation cases —all these factors combined to make the Court look long and hard at the utilities. Within the past few years, all this has been changed."*

reversed by the Michigan Supreme Court and Panhandle appealed to the nation's high Court. In a 7-to-2 decision, Panhandle lost the last round.

What is involved here is a matter of state regulatory policy. One guiding principle of regulation in many, if not most states, has been to give to a single utility company, the operating rights (or "monopoly," to use a harsher word) in a given area, but to hold such utility to a full service obligation in that area. If more service were needed, the utility could be compelled to provide it, rather than bring in an additional competitive utility which might result in wasteful duplication of facilities. Regardless of what the Michigan commission may decide to do on the question of direct industrial sales in the Detroit area, the Panhandle decision would seem to confirm the state authority to determine what its policy ought to be in such a situation.

Of course, there is the recent complication of emergency controls, whereby the Petroleum Administration for Defense might order any gas pipeline utility to serve or cease to serve a given area or class of customers, where the national defense effort required such extraordinary Federal regulation.

The fundamental problem in the case, as pointed out by the Federal Power Commission in its *amicus curiae* brief, is the possibility of conflict between state orders and FPC orders. If the FPC had granted Panhandle's request and the Michigan Public Service Commission had denied it, who would have prevailed? Conversely, if Michigan had approved

Panhandle's plans and the FPC denied its authority to lay pipelines, would the company have been able to proceed? The Federal Power Commission is convinced that its authority, under the Natural Gas Act of 1938, is superior to Michigan's rights. But under this holding, Michigan can still go ahead and pass on Panhandle's request, regardless of what action may be taken by the FPC.

Although congressional action would be supreme, Justice Minton pointed out that Congress had occupied only a part of the field when it passed the Natural Gas Act. That states had a right to regulate rates of pipeline companies had already been decided, of course, in the Panhandle Indiana case of 1947.[3] With that precedent, it was easy to hold that states have a further right to control sales through certificates of public convenience, which further implies the power to deny such certificate. There was no discrimination against interstate commerce, according to the Court, because Panhandle could still sell to Michigan Consolidated, as it had before.

The other leading decision of the past term was a continuation of two cases coming out of Oklahoma. The Court, without dissent, approved the state commission's right to fix minimum wellhead prices of natural gas, to give the states their other triumph. Cities Service Gas Company and Phillips Petroleum Company challenged Oklahoma's fixing of prices in the great Guymon-Hugoton field, but lost every round of their legal fight.

STATE authority over natural gas fields has always been justified by courts of law on the grounds that a state has a right to prevent waste of its natural resources. But now that physical waste of natural gas has been brought fairly well under control by state regulations, the Oklahoma Corporation Commission turned to the prevention of economic waste as a new justification for regulation, and this was upheld.[4]

Cities Service, with control over the majority of wells in the Guymon-Hugoton field, had been producing gas near acreage owned by the Peerless Oil & Gas Company, one of the smaller producers in the field. In addition, the pressure in the Cities Service area was considerably lower than that under Peerless, causing alleged drainage. Peerless offered to sell its output to Cities Service. Wellhead prices had been running from 3.6 to 5 cents per thousand cubic feet and Cities Service offered to pay Peerless 4 cents for all of its output.

Dissatisfied with this offer, Peerless turned to the Oklahoma Corporation Commission and asked for price fixing and an order compelling Cities Service to buy its gas. At the commission hearings, testimony was taken to the effect that low prices contributed to an uneconomic rate of depletion and that the economic waste of gas was promoting "inferior" uses. Concluding that gas was being taken at a price below its economic value, the commission fixed the wellhead price at 7 cents per thousand cubic feet and ordered Cities to take ratably from Peerless under a

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[3] Panhandle Eastern Pipe Line Co. *v.* Indiana Public Service Commission, 71 PUR NS 97.

[4] Cities Service Gas Co. *v.* Peerless Oil & Gas Co. 87 PUR NS 41; Phillips Petroleum Co. *v.* State of Oklahoma, 87 PUR NS 48.

formula established by the commission.

THIS case marks the clean-cut triumph of the "economic waste" theory. There was no evidence before the Oklahoma commission of any physical waste in the Guymon-Hugoton field. In fact, the commission's own witnesses testified that the state conservation laws were being obeyed. Although the Oklahoma statutes passed back in 1915 to protect the state's natural gas supply said nothing about economic waste, the Oklahoma Supreme Court said that economic waste was within the "contemplation" of the statute. The U. S. Supreme Court refused to interfere with the state court's interpretation of its own laws.

Mr. Justice Clark, writing for the Court, said there was clearly a legitimate local interest in Oklahoma's actions. It had a right to prevent rapid and uneconomic dissipation of one of its chief natural resources. He mentioned the strong national interest in problems of natural gas, but remarked that the wellhead price of gas is but a fraction of the price paid by domestic consumers at the burner tip. He then concluded, "In any event, in a field of this complexity with such diverse interests involved, we cannot say that there is a clear national interest so harmed that the state price-fixing orders here employed fall within the ban of the commerce clause."

The Phillips Company, challenging the same order in a companion case argued and decided with the Cities Service decision, owned leases in the Guymon-Hugoton field and obtained its natural gas as a by-product of gasoline and other liquid hydrocarbons. It based its argument on the fact that it was a producer, not a purchaser, and there was no public interest or monopolistic practices involved. Both the Oklahoma and United States Supreme courts rejected this claim, saying the connection between the price obtained and conservation applied to all producers in the field.

This case adds more complexity to a problem that has bothered pipeline company officials for a long time, and will, of course, ultimately affect every natural gas utility in the nation. The Cities Service decision establishes the fact that producing states can set their own wellhead prices. The Federal Power Commission establishes rates for the interstate pipelines. Already in a case involving Northern Natural Gas Company, the statutory price fixed by the state of Kansas has been introduced as evidence of cost of gas in a proceeding before the FPC—in contrast to the commission's established supervision by principal of requiring evidence of actual production cost.

THE Supreme Court decided two other utility cases at its last term which are of passing interest to the profession.

In an old-fashioned damage suit, Montana-Dakota Utilities Company received a technical procedural reverse, after it had gained a judgment for more than three-quarters of a million dollars against the Northwestern Public Service Company, in a Federal district court.[5] Montana-Dakota had charged that Northwestern, because of

[5] Montana-Dakota Utilities Co. *v.* Northwestern Public Service Co. 88 PUR NS 129.

interlocking directorates, had wrongfully deprived it of fair rates on exchanges of electricity from 1935 to 1945.

Mr. Justice Jackson, writing for the Court in a 5-to-4 decision, threw the action out of Court. If Montana-Dakota was complaining about unfair rates, Jackson said, its remedy was with the Federal Power Commission, not in a damage suit in a Federal court. If it was relying on fraud, the Federal Power Act made no provisions for such suits and a state court was the proper place to bring the action. The dissenters, led by Mr. Justice Frankfurter, said that the Federal Power Act, in making unreasonable rates against the law, provided a way for one utility company to sue another.

As far as the forthcoming term is concerned, the transit radio appeal,[6] involving the Capital Transit Company, was the only major case of utility interest definitely on the highest Court's agenda. This involves the right of the Washington, D. C., transit utility to operate commercial radio programs on its streetcars and busses, in alleged violation of the passenger's constitutional right to a freedom of leisure while riding. The court of appeals had ruled in favor of parties representing the protesting passengers.

The important Roanoke Rapids Case involves the right of the FPC to award a hydroelectric license to a private utility (Virginia Electric & Power Company) over the opposition of the Secretary of Interior. Decided in the Fourth U. S. Circuit Court of Appeals in favor of the FPC and rehearing recently denied, there remained at this writing some question as to whether Interior would appeal and if so, whether the case could be heard in time for a final decision before the Court's recess next June—assuming, of course, that a review were granted (which is a pretty liberal assumption).

Little or no chance was seen that one other major FPC test case could get through the District of Columbia Court of Appeals for decision at this term. This was the 4-to-1 decision of the FPC that it has no jurisdiction over independent natural gas producers, such as the Phillips Petroleum Company, under the Natural Gas Act. Appeals were expected to be taken, however, by the city of Detroit, and others who want FPC to regulate the rates of all producers of natural gas sold to pipelines for interstate supply of public utility distributors.

[6] Pollak *v.* District of Columbia Public Utilities Commission, 89 PUR NS 131.

"The *older we become, the more we are impressed by the concept of economic security. Some think the government can give it. The government can give security only if it has something to tax. If it is to attain the security we want, the government may have to tax to the point of no return.*

"Where initiative and risk are killed, there can be no security short of slavery if there isn't productive enterprise."

—Harold J. Stonier,
Executive manager, American Bankers Association.

Washington and the Utilities

Is Interior Really a Public Utility?

Now that the U. S. Circuit Court of Appeals has denied Interior's motion for a rehearing in the Roanoke Rapids Case, utility lawyers and a good many other people are beginning to wonder about the unusually frank position taken by the Interior in its brief. Denial of the motion was generally expected, of course, in view of the positive unanimous opinion of the appellate court to the effect that Interior had no interest (as a proper party to bring suit) in the question of whether the Federal Power Commission should grant a hydro license to Virginia Electric & Power Company. Interior in its brief, for motion for rehearing, maintained that it *does* have an interest—inasmuch as it is a "competitor" of the Virginia Electric & Power Company. Interior also claimed an obligation, by virtue of its quasi utility status, to seek low-cost power to supply its preference customers.

Those who remember the constitutional litigation over Federal electric power activity in the days of the New Deal, were surprised by this admission that the government is avowedly in the power business.

In those days, government power agencies always contended that their electric power operations were incidental to more obvious government functions (flood control, irrigation, etc.) authorized by the "commerce" clause.

For this very reason, earlier suits, by private companies (brought against the Tennessee Valley Authority and the subsequent loan-grant litigation) to invalidate government power operations, were thrown out of court. The private electric companies could not persuade the courts that the government was a competitor in the public utility business—a position which Interior now concedes.

Of course, this dropping of all pretense of "incidental" power operations by Interior was not entirely unheralded. It was foreshadowed in the speech by Interior Secretary Chapman to government attorneys last spring. At that time Chapman revealed that the government agencies had found a new and broader basis for any government activity which might be supported under the "general welfare" clause of the Constitution. This was the so-called "Gerlach decision" of the U. S. Supreme Court, 339 US 725.

The court confirmed its earlier opinion that the Flood Control Act of 1944 cannot be reasonably "construed as taking over for the United States the construction of the Roanoke Rapids project." The court further pointed out that the total capacity (91,000,000 kilowatts) Vepco plans to install "is being lost as long as the project is not constructed." Such construction, "even though by private enterprise," the court said, "adds just that much to the wealth of the country and the available electric energy so greatly needed in this period of national emergency."

Assuming that a further appeal is taken, some members of the U. S. Supreme Court may take a more sympathetic view of Interior's rôle as a servant of the "general welfare" of the nation. But it seems evident that Interior is one government agency, at least, which has cut adrift from the old limited concept of "incidental" power operations. From

now on, we may expect Interior, in other cases, to follow the new line.

THE Fourth U. S. Circuit Court of Appeals made short shrift of Interior's arguments about its obligations to serve its power customers. It pointed out that all of the power which the private company was seeking to produce is running to waste by reason of the delay caused by Interior's obstructionist litigation.

But there is more than a bare possibility that Interior Department lawyers have considered the delay factor in going through the motions of the petition for rehearing which the appellate court sat down on so hard.

First, mere filing for rehearing stopped the clock running (ninety days) on the time necessary for filing appeals with the U. S. Supreme Court. Had Interior been anxious to take an appeal and get it disposed of promptly, it could have appealed directly from the court's opinion. As matters now stand, it will be March before the case is in order for the Supreme Court to decide whether or not a review will be granted—assuming that Interior takes an appeal. This would make it pretty close timing for the case to be heard before middle April. And if arguments were not completed by that time, chances are that the Court would let the case go over until the next October term.

In the latter event, the case would come on to be heard during or shortly after the presidential election campaign of 1952. So, some of the Interior people might still be counting on a Truman victory or other propublic power policy coming to the rescue of the administration's public power agencies in 1952, just as President Truman's upset victory of 1948 gave them fresh new life (and money) following the 1948 election. Less optimistic observers would call this stretched-out timetable pretty much of a long shot parlay. But the Interior boys still remember what happened in '48. Which may explain why they are playing all of their cards, so carefully and deliberately.

CIO Committee to Study Public Ownership

ARE some of our own Labor Socialists losing a little ground in the CIO? It could be that a general trend recently reflected in the British Labor party's defeat in Great Britain is having some repercussions here. For public utility industries in the United States, however, the activity of the CIO Utility Workers Union of America at the recent CIO convention in New York is significant. Up to now, a strong group of ivory-tower Socialists, who used to sit at the feet of Laski, were firmly in control of the policy-making level of the CIO. They have consistently dictated that organization's antiutility and propublic ownership attitude. Previous opposition of the CIO Utility Workers Union has heretofore been outvoted or brushed aside.

For the past three years, the Utility Workers Union has stubbornly taken the position that where private utility management has dealt fairly with its union members, the national CIO antiutility policy is detrimental and embarrassing to the bargaining position of its own Utility Workers Union. This year, as in previous years, a CIO resolution endorsing "authorities" and public power projects was approved. But, behind the scenes, the Utility Workers managed to wangle a concession. Just before the convention, CIO President Philip Murray promised the Utility Workers Union that it would have some say in drafting the public power resolution. Later on, Murray compromised. He appointed a special committee to consider CIO's future position on public power and allied power questions.

This new special CIO committee will be composed of six CIO vice presidents. They will meet with officials of the CIO Utility Workers Union, in the near future, in an effort to come to a permanent understanding on how far the CIO should go on matters affecting the enterprise status of the employees of Utility Workers Union members. The Utility Workers Union welcomed this opportunity because it thinks that the high CIO officials can be persuaded that they are doing the

cause of organized workers more harm than good in flirting with Socialism. The new committee of CIO vice presidents includes: Walter Reuther of the Automobile Workers; James Carey of the Electrical Workers; Alan Haywood of the Steelworkers; Michael Quill of the Transport Workers; Emil Rieve of the Textile Workers; and Jacob Potofsky of the Amalgamated Clothing Workers.

OFFHAND, that lineup would seem to be pretty heavily weighted on the left side. But Michael Quill and Alan Haywood know enough about the importance of industrial security as a basis for labor organization to lend a sympathetic ear to the Utility Workers Union. Even such theoretical Socialists as Walter Reuther and James Carey are said to be taking a more realistic view to the effect that local unions, which have lived with and succeeded in getting along with certain industrial employers, ought to be left alone. That is all the Utility Workers want. But they do resent having their particular union-industry relations periodically shaken by outside top-policy CIO pronouncements written by theorists who know little or nothing about the industries they would like to socialize.

Pushing up Rate Increases

WITH over $100,000,000 in gas rate increase requests before it, the Federal Power Commission is now receiving requests from gas companies, supplied by other companies seeking rate increases, to advance the date for the former's rate requests to go into effect under bond. The reason: Most of these companies are supplied by transmission lines which have earlier rate increase requests already pending before the commission. The transmission companies will be permitted to put their increases into effect soon and the secondary company would then have to pay a higher rate until the suspension time ran on its own rate request and recoupment could begin.

The commission last month denied three such requests. United Fuel Gas Company of Charleston, West Virginia, sought to have the suspension period on its rate increase proposal expire on the same date as that of its supplier, Tennessee Gas Transmission Company. In turn, the Ohio Fuel Gas Company, of Columbus, Ohio, and Central Kentucky Natural Gas Company of Charleston asked to have their rate suspension periods coincide with United Fuel, their supplier. Under commission procedure, a company may put its new rate schedule into effect under bond if the FPC has not acted within a 5-month period.

United Fuel contended that there would be a lag of about seven weeks during which time it would have to pay Tennessee's higher rates without any possibility of recoupment. Ohio Fuel and Central Kentucky both pointed out that if United's motion was granted, there would be a similar lag during which they would be paying United's higher rate. The commission, in denying these motions, said that no provision in the law is made for an earlier effective date, under these circumstances, even upon posting of a bond.

Aluminum Czar Named

IN an effort to end an unhappy chapter of backing and filling in the aluminum expansion program, the Defense Production Administration, on order from Defense Mobilizer Charles E. Wilson, established recently the office of an aluminum czar with broad powers over the entire aluminum field.

The new chief of the special aluminum division of the DPA, Samuel W. Anderson, will be, in effect, the immediate recipient of the buck which has tended to pass from agency to agency and has delayed the program to increase the country's aluminum capacity.

So far firm agreements have been signed—after much delay—for an expansion of about 90 per cent over the pre-Korea capacity of 750,000 tons. It is understood that Mr. Wilson will press for another 40 per cent of the 90 per cent, or a total expansion of about 900,000 tons.

Exchange Calls And Gossip

CWA Head Hits WSB Wage Curb

JOSEPH A. BEIRNE is president of the Communications Workers of America (CIO). He is also a representative of labor interests on the Wage Stabilization Board, a defense agency of the United States government, whose function it is to control wages during the inflationary national defense emergency.

At the November convention of the CIO in New York, a general rebellion against wage controls was voiced by most CIO leaders. Members were urged to use all means, including the strike, to break through the wage barrier.

Beirne, WSB representative, took the rostrum and was quoted as urging the general convention to go back home and negotiate wage increases "just as if there were no Wage Stabilization Board . . . without fear of any man or any consequences." Critics of Beirne's frank revolt against the WSB were urging at the convention's closing that he ought to resign as labor representative on the WSB.

The CWA leader and his followers apparently think that the present WSB wage increase formula—which limits over-all wage increases of about 12½ per cent since January, 1950 (exclusive of fringe benefits)—will not be enforced by the administration if the labor unions freely use the strike weapon to obtain higher concessions. At the present time they are said to feel that the WSB is standing in the way of higher wages, which the unions could get by unrestricted bargaining with employers. As a result of this attitude in the CIO convention, it is believed that many wage increase requests in many industries will soon be forthcoming, with the strike threat used unhesitantly despite the national emergency.

REA Telephone Loan Program

THE Rural Electrification Administration telephone loan program is going through a "shakedown" period. The progress of loan applications, and construction work done as a result of loans already granted, is getting close scrutiny with an eye to streamlining the REA procedures in the most efficient manner possible. REA officials are open to suggestions from the industry on ways and means to accomplish this objective.

Already some revisions in the loan contract form and the standard loan contract documents are under preparation. As an example, the revised loan contract will call for "reasonable" compliance with most of the terms of the loan contract. The insertion of the word "reasonable" will guarantee, according to REA spokesmen, borrowers against any "capricious" default rulings if borrowers do not strictly comply with these contract conditions. The omission of the word "reasonable" in the previous form was a technical oversight, as reported by REA officials.

There has been a relaxation of restrictions governing the payment of dividends as a result of revisions in the loan documents. Up until now, REA borrowers were obliged to maintain a 2-to-1 ratio of current assets *versus* current liabilities before dividends could be paid. As a result of protests over this formula, REA is now rewriting the section of the mortgage document dealing with dividends and allowing dividend payments if the

balance of current assets over current liabilities is equal to or exceeds "one year's debt service" on the loan. The term "one year's debt service" is the annual amount due on the loan payment, plus interest. Generally speaking, this represents an amount equal to "slightly over 5 per cent of the loan."

CHANGES are also due in the maintenance stipulations of the rewritten loan documents. Standard industry practice has been acceptable in the past. Now under the new terms a specific percentage of gross revenues must be used or reserved for maintenance. If this amount which is set aside exceeds or equals a higher percentage, then the surplus amount must be used for expansion of service or for prepayment on the loan. REA officials describe this provision as a protective measure to insure the maintenance of the lines and equipment and, consequently, the soundness of the loan.

REA officials report that construction by telephone companies and co-ops is moving along as well as can be expected, with the material situation as it is. About twenty borrowers have construction under way and at least another twenty have been cleared for "advance of money" and should start construction in the near future. REA claims that it is current with all requests for money advances.

Aside from the paramount material problem, another factor contributing to slow loan advances, according to REA officials, is routine state regulatory approval of expansion plans of borrowers. In one instance, REA stopped money advances on one approved loan since approved equipment bids indicated that the company would have to come back to REA for a deficiency loan to complete the expansion. The deficiency loan would probably be granted by REA but REA had to hold up the first loan until clearance could be obtained from the state commission on the second. Otherwise, there would be the possibility that a refusal by the state commission to approve the second loan would render the first loan unsound.

Telephone-answering Devices Held to Be Foreign Attachments

THE FCC has released a 45-page hearing examiner's initial decision in denying the complaints of certain manufacturers of telephone-answering devices against filed tariffs of Bell and independent telephone companies. These tariffs prohibit the use of any such attachment to telephone lines unless furnished, installed, and maintained by the telephone companies themselves.

In its conclusions, the decision by Examiner Basil P. Cooper points out that in 1950, approximately 98.8 per cent of all telephone messages transmitted over Bell system facilities were exchange and intrastate calls and 1.2 per cent were interstate or foreign toll messages, but nevertheless the FCC has jurisdiction in the proceedings. It was also concluded that there is "a present public need and demand for the use of a telephone-answering device in connection with interstate and foreign telephone service"; that the use of telephone-answering devices cannot be restricted to interstate and foreign telephone service inasmuch as the device cannot distinguish between interstate and local calls.

On the main question, however, Cooper's opinion denied the complaints and petitions of the equipment manufacturers as to the unjustness and unreasonableness of the "foreign attachment" provision, "subject, however, to the qualification that the foreign attachment provisions contained in the tariffs of the ... telephone companies shall not be used or construed to prohibit the ... subscriber from installing and using a telephone-answering device not furnished by the telephone company in any community or state in which the use of such telephone-answering device is authorized by the appropriate local regulatory agency or state commission."

Cooper's decision will become effective December 24th, subject to FCC rules providing for filing of exceptions. Such a step, as well as court appeal, will probably be taken.

Financial News and Comment

By OWEN ELY

The Natural Gas Industry

An interesting story on the natural gas industry appeared in the November issue of *Scientific American*. Professor James J. Parsons, of the University of California, pointed out that in terms of energy units the 6 trillion cubic feet of natural gas used in this country last year were equivalent to four times the amount of hydroelectric power generated. Natural gas accounted for nearly one-fifth of the nation's total energy consumption from all commercial sources. Natural gas may soon outstrip petroleum in relative importance in the national economy.

The present proved reserves of gas now exceed 185 trillion cubic feet, which is equal in heat units to over 30 billion barrels of oil—5 billion more than the total proved reserves of petroleum. Also, gas reserves are increasing at a more rapid rate than those of oil and this seems likely to continue. Thus as oil becomes harder to find gas will increasingly take its place, not only as a heating fuel but also as a source of gasoline and many chemical products. Gas is already being converted into gasoline or diesel fuel on a commercial basis at the new Carthage Hydrocol plant in Brownsville, Texas. "The hydro carbons of natural gas," Professor Parsons states, "can serve as raw material for a wide range of chemical products, including synthetic fibers, synthetic rubber, alcohol, plastics, insecticide, and ammonia fertilizers."

We now have 315,000 miles of natural gas pipelines in the country or more than the total mileage of all railroad lines. When the lines to New England are completed early in 1952, every part of the country except the Pacific Northwest will be accessible to the gas transmission network.

One interesting development of recent years is the fact that California, at one time the largest oil-producing state and also a heavy gas producer, in the past three years has been importing large amounts of gas from Texas and New Mexico. The state's own natural gas occurs chiefly in the oil fields, and is now needed to maintain the pressure and production of the oil wells. As a result, Pacific Gas and Electric and other utilities have found it increasingly difficult to buy gas in their own state and are now

Department Index

VALUE OF PUBLIC UTILITY SECURITY OFFERINGS

	TOTAL CAPITAL FINANCING	BY TYPE OF SECURITY		
		LONG-TERM DEBT	PREFERRED STOCK	COMMON STOCK
BY TYPE OF UTILITY:				
ELECTRIC	$1,039,864	$ 736,140	$ 40,675	$263,049
GAS	601,360	466,625	61,172	73,563
TELEPHONE	505,864	435,914	13,400	56,550
OTHER	29,327	25,612	3,715	-
TOTAL	$2,176,415	$1,664,291	$118,962	$393,162
BY TYPE OF SALE:				
PUBLIC (DIRECT)	$1,023,824	$ 816,600	$ 98,962	$108,262
PRIVATE	452,966	432,277	19,000	1,689
SUBSCRIPTION	699,625	415,414	1,000	283,211
TOTAL	$2,176,415	$1,664,291	$118,962	$393,162
BY PURPOSE OF SALE:				
NEW MONEY	$2,111,435	$1,635,603	$ 88,512	$387,320
DIVESTMENT	5,842	-	-	5,842
REFUNDING	59,138	28,688	30,450	-
TOTAL	$2,176,415	$1,664,291	$118,962	$393,162
BY METHOD OF SALE:				
COMPETITIVE	$ 867,934	$ 812,700	$ 4,000	$ 51,234
NEGOTIATED	308,510	3,900	95,747	208,863
NO UNDERWRITING	547,005	415,414	215	131,376
PRIVATE	452,966	432,277	19,000	1,689
TOTAL	$2,176,415	$1,664,291	$118,962	$393,162

NINE MONTHS ENDED SEPTEMBER 30, 1951

(IN THOUSANDS)

Prepared by Ebasco Services, Inc.

forced to import over half their supply.

Professor Parsons points out that it would have been much more economical to have used Texas gas for local industries rather than to pipe it to New York or Chicago, where transportation costs make the cost ten times as high as at the Texas field. However, in this connection we might mention that Aluminum Corporation has set up a plant in Texas to burn gas to produce the huge amounts of electricity needed to refine the aluminum.

Also, much of the gas piped to Chicago and New York and other big centers is for residential rather than industrial use.

Texas is now considering a minimum price law which would raise the price of gas and reduce its competitive advantages over coal and oil in distant markets. State regulatory bodies in Kansas and Oklahoma have recently fixed minimum prices in the field at 7 cents and 8 cents per MCF, as permitted by the recent U. S. Supreme Court decision in restricting the

powers of the Federal Power Commission.

NATURAL gas reserves amounting to over 8 trillion cubic feet have already been located in Alberta, Canada, and new discoveries are expanding these reserves at a rapid rate. A Canadian subsidiary of the Texas Oil Company has applied for permission to build a 2,240-mile line from Edmonton and Calgary to Montreal—the longest gas line ever built. There are also several applications for lines to pipe gas from Alberta to the Chicago area and Pacific Northwest. Hence Canada may eventually take over part of the job of supplying gas to the northern part of this country.

It is interesting to note that Tennessee Gas Transmission has considered building a $47,000,000 pipeline from Buffalo to the Canadian border, to connect with a new Canadian line which would serve Toronto and adjacent areas, although the application to the FPC has been temporarily withdrawn. This would seem to be "carrying coals to Newcastle," though of course the Canadian gas reserves are in the western part of the country and are still mainly undeveloped.

Analysis of 1951 Utility Financing

THE table on page 835 shows the amount of utility financing during the first nine months of 1951, as compiled by Ebasco Services. Some conclusions to be drawn from these statistics are as follows:

Total financing has apparently lagged somewhat as compared with last year, but underwriters are currently very busy with new offerings following the summer "recess," so that it is quite possible that the year's total may approach the 1950 figures. Of the total nine months' financing, 76 per cent has been debt, 5 per cent preferred stock, and 18 per cent common stock. For the electric utilities alone the figures were 71, 4, and 25 per cent; for the gas companies 78, 10, and 12 per cent; and for the telephone companies 86, 3, and 10 per cent. However, equity financing in the Bell system is accomplished largely through sales of AT&T stock to employees and through steady conversion of the various convertible debentures.

Regarding the type of sale, private sales (usually to institutions) accounted for 21 per cent of the total, applying principally to bonds. Of the common stock sales, 72 per cent were offered through the medium of "rights" to stockholders, with the balance going directly to the public. (Only a fraction of one per cent was placed privately.) It looks as though about 54 per cent of subscription offerings of common stock were underwritten and 46 per cent offered without such support. (This is on the assumption that the entire amount of common stock sold without underwriting belonged in the "subscription" bracket.) Of the total amount of securities sold through subscription — $700,000,000 — $415,000,000 was in debt, and this obviously represented American Telephone and Telegraph financing.

Turning to "purpose of sale," it may be noted that the raising of new funds accounted for almost all of this year's financing, only about two per cent reflecting refunding operations and less than one per cent holding company or other divestments. Regarding the method of sale, slightly over half of all security offerings were underwritten. Of the latter amount, 74 per cent were sold through competitive bidding and 26 per cent through negotiation with underwriters.

Highlights of Economists' Forecasts

THE National Federation of Financial Analysts Societies recently held its eastern regional conference, and the following high lights of some of the talks may be of interest.

Views differed on the outlook for inflation. Edwin B. George, economist for Dun & Bradstreet, said that he thought the outlook was *not* for inflation in 1952, and that we might well see some deflation. Henry Hazlitt, economist and author, be-

lieves that inflation is still dominant in the world, though deflationary forces may continue operative over the next eight months. The Federal government will prevent any significant deflation by putting more money into circulation, and he felt that three years from now the price level will be higher. Ragner D. Naess, investment counselor, thought that 1952 would be a good business year.

CURRENT UTILITY STATISTICS AND RATIOS

	Unit Cost	Latest Month	Latest 12 Mos.	Per Cent Increase Latest Month	Per Cent Increase Latest 12 Mos.
Operating Statistics (September)					
Output KWH—Total	Bill. KWH	30.3	361.4	9%	15%
Hydro-generated	"	7.0	—	D7	—
Steam-generated	"	23.3	—	15	—
Capacity (August)	Mill. KW	74.3	—	12	—
Peak Load (July)	"	60.5	—	12	—
Fuel Use: Coal	Mill. tons	8.6	—	11	—
Gas	Mill. MCF	77.3	—	29	—
Oil	Mill. bbls.	5.1	—	D14	—
Coal Stocks	Mill. tons	38.2	—	29	—
Customers, Sales, Revenues, and Plant (August)					
KWH Sales—Residential	Bill. KWH	4.2	53	13%	14%
Commercial	"	3.9	42	10	12
Industrial	"	11.5	129	13	10
Total, Incl. Misc.	"	26.4	301	9	9
Customers—Residential	Mill.	29.6	—	5	—
Commercial	"	4.3	—	1	—
Industrial	"	.6	—	3	—
Total	"	36.6	—	4	—
Income Account—Summary (August)					
Revenues—Residential	Mill. $	126	1,582	11%	11%
Commercial	"	103	1,173	9	8
Industrial	"	127	1,444	10	15
Total, Inc. Misc. Sales	"	395	4,636	10	11
Sales to Other Utilities	"	34	388	6	6
Misc. Income	"	8	202	D5	2
Expenditures					
Fuel	"	77	827	14%	14%
Labor	"	86	984	9	10
Misc. Expenses	"	67	786	7	4
Depreciation	"	39	462	10	10
Taxes	"	89	1,072	14	25
Interest	"	24	272	8	7
Amortization, etc.	"	2	22	D4	D1
Net Income	"	54	802	—	D2
Preferred Div. (Est.)	"	10	114	9	9
Bal. for Common Stock (Est.)	"	44	688	—	D2
Common Dividends (Est.)	"	43	516	8	9
Balance to Surplus (Est.)	"	1	172	—	D8
Electric Utility Plant (August)	"	$20,024	—	9%	—
Reserve for Deprec. and Amort.	"	4,105	—	8	—
Net Electric Utility Plant	"	15,919	—	9	—
Life Insurance Investments (January 1st-November 3rd)					
Utility Bonds	"	—	584	—	D47%
Utility Stocks	"	—	43	—	D73
Total	"	—	627	—	D50
% of All Investments	"	—	7%	—	D63

D—Decrease.

Stock prices are conservative in relation to earnings and dividends, and have been for the past several years. The recent decline in stock prices was part of a natural intermediate reaction, but we are not in a bear market.

In the utility forum Graham Claytor, vice president in charge of operations of American Gas & Electric, said that there was no saturation of electric use in sight. Possibilities for the heat pump are tremendous. General Electric is now bringing out its first packaged unit (for winter and summer air conditioning) on a commercial basis, and volume production eventually will bring costs down. Where adopted, the heat pump will increase domestic consumption three to five times.

He pointed out that the most modern steam-generating units are 50 per cent more efficient than the present *average* unit, requiring only .7 pound of standard coal per kilowatt hour generated. Further gains in steam efficiency are anticipated, and generating units up to 250,000 kilowatts are now clearly visualized. One pound of coal equals 10,000,000 pounds of water falling one foot, and there has been little change in the efficiency of the hydroelectric turbine over the past forty years. The cost of transmitting a kilowatt hour has been greatly reduced and transmission lines are now being built to carry 330,000 kilovolts.

HUGH CUTHRELL, president of Brooklyn Union Gas Company, said that while present known gas reserves will last only about twenty-four years, future discoveries might make the supply adequate for the next thousand years. Nevertheless his company is spending increased time and money for research on manufactured gas production. They are now making 1,000 BTU gas out of oil, that will soon be completely interchangeable with natural gas; they are also working on a similar program with coal but this may take ten years to complete. Gas of 1,000 BTU can now be made at a cost of 60 cents per MCF and he expects eventually to see the cost reduced to around 42 cents, the cost of storage gas.

Large Utility Capital Required In Proportion to Output

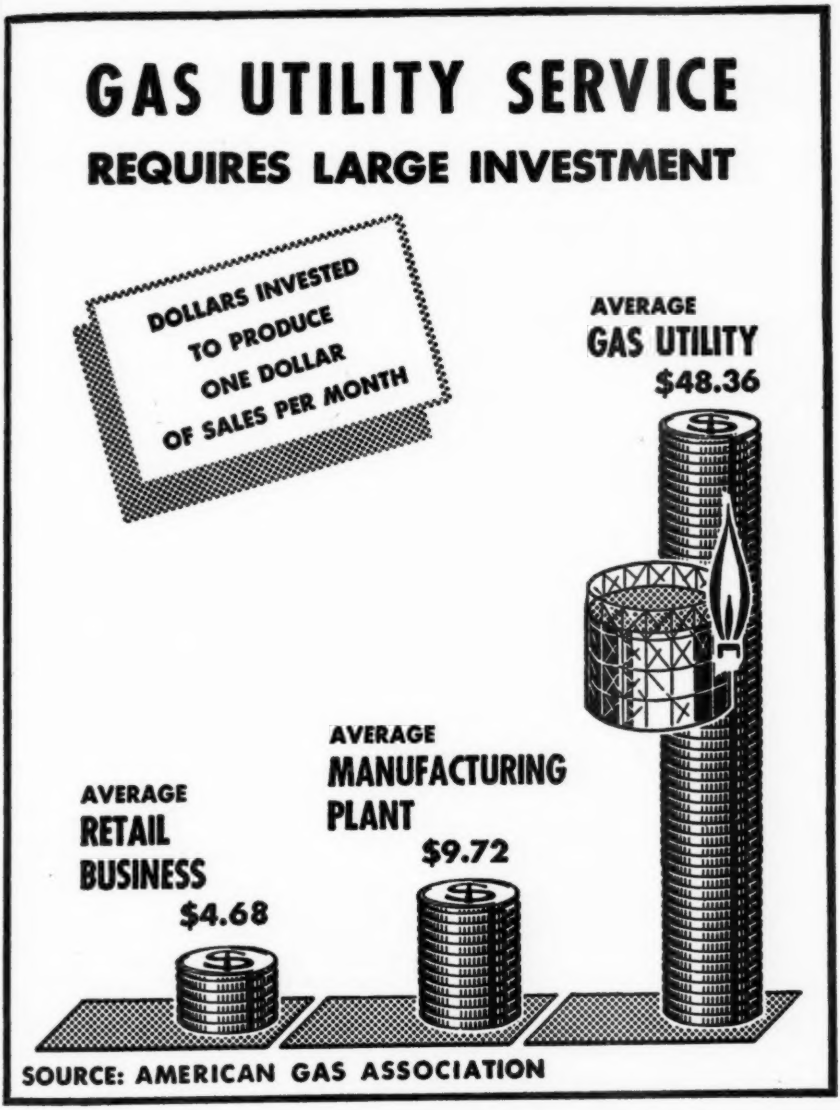
THE chart on page 839 shows the number of dollars of invested capital required to produce $1 of gas sales per month, as compared with the average manufacturing plant and retail business. Comparative figures for electric power companies are not given, but are estimated to approximate $46 per month. On an annual basis (as usually stated) the comparisons are as follows:

Gas Utility	$4.03
Electric Utility	3.40
Manufacturing Plant	.80
Retail Business	.39

These figures help to explain the tremendous amount of construction and financing necessary to expand electric and gas utility output, as compared with similar programs for other industries.

Importance of Analyzing Labor Costs

IT has been generally assumed, perhaps, that because the electric utilities have been able to increase their output sharply without a great increase in operating personnel, that their labor administration is quite efficient as compared with industrial standards. But this may not necessarily be the case. There are several factors which may account for the utilities' control over the number of employees: (1) It may be surmised that in the old days some utilities, particularly those in the larger cities, tied in their labor policy with local politics, and became overstaffed as a result; this oversupply has probably now been ironed out. (2) The integration of utility systems and the merger of utility companies have eliminated a considerable amount of personnel. (3) Present-day labor is probably better trained initially for the job, through the setting up of training courses, etc. (4) There have been important reductions in the amount of labor required to service generating plants, substations, etc., through improved de-



signing and greater use of automatic controls.

Consolidated Edison of New York, largest utility in the world, reduced the number of its employees from 33,500 in 1941 to 23,544 in 1944; the number subsequently increased to 29,700 at December 31, 1950. During the 10-year period kilowatt sales increased from 7.2 billion to 11 billion. Thus "productivity" per employee rose from 225,000 kilowatts per annum in 1941 to 370,000 kilowatts in

1950, an increase of 65 per cent. However, during the same period the average weekly pay (including overtime and premium payments) rose from $39 to $69 and as a result the operating payroll advanced from $65,000,000 to $94,000,000, an increase of 45 per cent. The labor cost of each kilowatt hour was 9.1 mills in 1941, while in 1950 it was 8.6 mills, a reduction of 6 per cent. However, in the meantime, average kilowatthour revenues dropped from 2.92 cents to 2.74 cents, a reduction of 7 per cent. Thus, any economies obtained from better labor administration were fully passed along to labor and consumers, and were of no benefit to stockholders. Statistics for the country as a whole are not readily available, but it appears likely that Con Edison's experience is more or less typical of the entire industry.

A 38-PAGE brochure, prepared by C. P. Guercken, was recently issued by Ebasco Services, Inc., entitled "Comparative Analysis of Labor Utilization in the Electric Utility Industry." This study deserves to be read carefully by all utility executives who deal with labor problems. Mr. Guercken points out:

> Of the total wages of both labor and capital, labor has taken a progressively greater share each year, and it is only the reduction in money costs over the last two decades that has acted as a partial offset to this trend. Since no further reduction in money costs can be anticipated, the participation of labor . . . may well grow at an even faster rate than heretofore.

Comparing 1950 with 1933, "the total wages of labor increased 242 per cent, while the wages of capital rose only 45.9 per cent." The table below indicates the proportion of revenues for major expense items.

Mr. Guercken concludes that the average utility worker has greater security of employment than workers in manufacturing plants or the railroads. The chance of continuous employment in the utility industry has been nearly twice that in other industries. As regards utility wage and salary rates, both the long-term level and the relative stability are considerably above the general average.

IN our opinion, labor relations have now become of such prime importance to the utilities that the larger companies can well afford to set up vice presidents in charge of labor relations. Moreover, it should be worth while to enlist the advice and aid of outside organizations such as Ebasco Services, Stone & Webster, Commonwealth Services, and others, in a broad program to set up standards of "job evaluation" so that labor efficiency, and the introduction of labor-saving devices and methods, can be stimulated throughout the whole organization. Labor unions should prove co-operative since greater "productivity" per man-hour can be recognized in increased wages, and the rapid growth of the business should prevent any decrease in the total number of employees.

Economic observers are generally pointing at this time to the likelihood that labor unions will soon be making new demands for higher wages, regardless of established control restrictions and formulas for setting them up. Public utility companies generally should be anxious to get their labor relations machinery in tiptop working order in anticipation of what is likely to come.

	1939	*1943*	*1947*	*1948*	*1950*
Cost of Capital (Operating Income)	34.8%	25.0%	22.4%	21.9%	21.5%
Cost of Labor	17.5	14.7	21.6	21.0	20.6
Taxes	16.4	24.1	18.9	19.3	21.0
Fuel	7.9	12.9	17.3	17.2	17.1
Depreciation	11.6	10.9	9.8	9.5	9.8

RECENT FINANCIAL DATA ON GAS COMPANY STOCKS

		11/15/51 Price About	Indicated Dividend Rate	Approx. Yield	Share Earnings## Cur. Period	Share Earnings## % Increase	Share Earnings## Freq. of Reports**	Price-Earnings Ratio	Div. Payout
	Producers and Pipeline Companies								
O	Commonwealth Gas	12	$ .15	1.3%	$ .74d	19%	a	16.2	20
S	Mississippi Riv. Fuel	34	2.00	5.9	3.31s	13	qy	10.3	60
O	Missouri-Kans. P.L.	60	1.60	2.7	1.66d	D62	a	—	96
S	Southern Nat. Gas	50	2.50	5.0	4.11s	17	qy	12.2	61
O	Southwest Nat. Gas	8	.20	2.5	.45s	61	bq	—	44
O	Tenn. Gas Trans.	24	1.40	5.8	1.79s	D3	qy	13.4	78
O	Texas East. Trans.	18	1.00	5.6	1.93d	30	a	9.3	52
O	Texas Gas Trans.	18	—	—	1.95d	141	a	9.2	—
	Averages			4.1%				11.8	
	Integrated Companies								
S	American Natural Gas	34	$1.80	5.3%	$2.66s	48%	bq	12.8	60
S	Columbia Gas System	15	.90	6.0	1.20s	4	qy	12.5	75
S	Consol. Nat. Gas	59	2.50	4.2	5.58s	19	qy	10.6	45
S	El Paso Nat. Gas	34	1.60	4.7	3.08ju	120	my	11.0	52
S	Equitable Gas	21	1.30	6.2	1.82s	D15	bq	11.5	71
O	Interstate Nat. Gas	36	2.50	6.9	3.25d	30	a	11.1	77
O	Kansas-Neb. Nat. Gas	22	1.12	5.1	1.95d	20	qc	11.3	56
C	Lone Star Gas	26	1.40	5.4	1.72s	D20	mqy	15.1	81
S	Montana-Dakota Utils.	23	.90	3.9	.79s	D23	qy	—	114
O	Mountain Fuel Supply	17	.70	4.1	.99d	9	a	17.2	61
C	National Fuel Gas	14	.80	5.7	1.21s	1	bq	11.6	66
O	National Gas & Oil	8	.40	5.0	1.04d	68	a	7.7	38
S	Northern Nat. Gas	37	1.80	4.9	1.62s	D26	qy	22.8	111
C	Oklahoma Nat. Gas	34	2.00	5.9	2.92s	—	b	11.6	68
C	Pacific Pub. Serv.	15	1.00	6.7	2.23d	7	qc	6.7	45
S	Panhandle East. P.L.	60	2.00	3.3	2.86je	11	qy	21.0	70
S	Peoples Gas Lt. & Coke	126	6.00	4.8	8.36s	D17	qy	15.1	72
O	Southern Union Gas	23	.80	3.5	1.51d	13	qc	15.2	53
S	United Gas	25	1.00	4.0	1.52s	9	qy	16.4	66
	Averages			5.0%				13.4	
	Retail Distributors								
O	Atlanta Gas Light	22	$1.20	5.5%	$2.00je	D10%	bq	11.0	60
C	Bridgeport Gas	24	1.40	5.8	1.47d	D22	a	16.3	95
O	Brockton Gas Lt.	9	.56	6.2	.58d	D2	a	15.5	97
S	Brooklyn Union Gas	47	3.00	6.4	4.16s	14	qc	11.3	72
O	Central El. & Gas	10	.80	8.0	1.05je	2	qy	9.5	76
C	Consol. Gas Util.	11	.75	6.8	1.56ju	5	qy	7.1	48
O	Hartford Gas	36	2.00	5.6	2.68d	—	a	13.4	75
O	Haverhill Gas Lt.	34½	1.80	5.2	2.04s	3	my	16.9	88
O	Houston Nat. Gas	18	.80	4.4	1.49ju	41	a	12.1	54
O	Indiana Gas & Water	23	1.40	6.1	2.13s	18	c	10.8	66
O	Jacksonville Gas	34	1.40	4.1	4.97d	4	a	6.8	28
C	Kings County Ltg.	7	.40	5.7	.45d	D30	qc	15.6	89
S	Laclede Gas	8	.50	6.2	.89s	11	b	9.0	56
O	Michigan Gas Utils.	13	—	—	1.11s	54	qy	11.7	—
O	Minneapolis Gas	20	1.05	5.3	1.22s	15	qy	16.4	86
O	Mobile Gas Service	30	1.60	5.3	2.82s	D17	bq	10.6	57
O	New Haven Gas Lt.	26	1.60	6.2	1.92d	13	a	13.5	83
S	Pacific Lighting	52	3.00	5.8	3.53s	D16	bq	14.7	85
O	Providence Gas	9	.50	5.6	.57d	2	a	15.8	88
C	Rio Grande Valley Gas	2	.12	6.0	.20je	10	qy	10.0	60
O	Rockland Gas	35	1.70	4.9	4.63d	5	a	7.6	37
O	Seattle Gas	17	.60	3.5	1.45je	6	qy	11.7	41
O	So. Jersey Gas	18	.50	2.8	.53d	29	qc	—	—
O	Springfield Gas Light	34	1.60	4.7	1.64d	—	—	20.7	98
S	United Gas Improv.	28	1.55	5.5	1.98s	D8	qy	14.1	78
S	Wash. Gas Light	25	1.50	6.0	2.54s	10	bq	9.8	59
	Averages			5.5%				12.5	

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER COMPANIES

		11/15/51 Price About	Indicated Dividend Rate	Approx. Yield	Share Earnings# Cur. Period	% Increase	Freq. of Reports**	Price-Earnings Ratio	Div. Payout
	Communications Companies								
	Bell System								
S	Amer. Tel. & Tel.	158	$9.00	5.7%	$12.67*ag	6%	mcy	12.5	71
O	Cinn. & Sub. Bell Tel.	72	4.50	6.3	4.59d	D4	qc	15.7	98
C	Mountain Sts. T. & T.	104	6.00	5.8	6.48s	D8	qy	16.0	93
C	New England Tel.	109	8.00	7.3	7.33s	2	qy	14.9	109
S	Pacific Tel. & Tel.	111	7.00	6.3	8.86ag	35	qy	12.6	79
O	So. New Eng. Tel.	33	1.80	5.5	2.12d	18	qc	15.6	85
	Averages			6.2%				14.5	
	Independents								
O	Central Telephone	11	$ .80	7.3%	$1.33ag	11%	qy	8.3	60
S	General Telephone	31	2.00	6.5	2.52s	103	qy	12.3	79
C	Peninsular Tel.	41	2.50	6.1	3.77s	D10	c	10.9	66
O	Rochester Tel.	12	.80	6.7	1.52d	69	qc	7.9	53
	Transit Companies								
O	Chicago SS. & S.B.	11	$1.00	9.1%	$1.67d	84%	qc	6.6	60
O	Chicago No. Sh. & Mlke..	5	—	—	.46d	—	a	10.9	—
O	Cinn. St. Ry.	4	.30	7.5	.19d	D77	a	—	158
O	Dallas Ry. & Term.	13	1.40	10.8	1.76d	27	a	7.4	80
S	Greyhound Corp.	11	1.00	9.1	1.19s	3	qy	9.2	84
O	Los Angeles Transit	5	.50	10.0	.51d	D39	qc	9.8	98
S	Nat. City Lines	10	1.00	10.0	1.90d	9	qc	5.3	53
O	St. Louis P.S. A	8	.50	6.3	.41d	D15	qc	—	122
O	Syracuse Transit	28	2.00	7.1	2.89d	366	a	9.7	69
O	United Transit	3	—	—	.68d	24	qc	4.4	—
	Averages			8.7%				7.9	
	Water Companies								
	Holding Companies								
S	Amer. Water Works	9	$ .50	5.6%	$ .90s	D11%	qy	10.0	56
O	N.Y. Water Service	26	.80	3.1	1.92s	18	qy	13.5	42
	Operating Companies								
O	Bridgeport Hydraulic	30	1.60	5.3	1.45d	D8	a	20.7	110
O	Calif. Water Serv.	27	2.00	7.4	2.18s	D13	b	12.4	92
O	Elizabethtown Water	100	6.00	6.0	6.96d	D17	a	14.4	86
S	Hackensack Water	31	1.70	5.5	2.73d	2	qc	11.4	62
O	Jamaica Water Supply ...	22	1.50	6.8	2.09s	19	qy	10.5	72
O	New Haven Water	54	3.00	5.6	3.25d	D6	a	16.6	92
O	Ohio Water Service	21	1.50	7.1	1.94s	10	bq	10.8	77
O	Phila. & Sub. Water	33	.80	2.4	3.06d	D12	a	10.8	26
O	Plainfield Union Wt.	48	3.00	6.3	4.16d	D18	q	11.5	72
O	San Jose Water	32	2.00	6.3	2.49s	D13	b	12.9	80
O	Scranton-Spring Brook ...	13	.90	6.9	1.00je	D7	qy	13.0	90
O	Southern Cal. Water	8	.65	8.1	.83m	8	qy	9.6	78
O	Stamford Water	52	2.00	3.8	2.10d	D11	a	24.8	95
O	West Va. Wt. Service	21	1.20	5.7	1.37s	12	bq	15.3	88
	Averages			5.9%				13.9	

D—Deficit. C—Curb exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. *Based on average number of shares outstanding. # In order to facilitate comparisons, earnings are calculated on present number of shares outstanding, except as otherwise indicated. PF—*Pro forma*. d—December, 1950. m—March. my—May. je—June. ju—July. ag—August. s—September. NC—Not comparable. **The following symbols are used in this column to indicate the periods and frequency of earnings reports: a—Calendar year only. b—Twelve months only (reported monthly). bq—Twelve months only (reported quarterly). c—Cumulative months and twelve months. mc—Latest month and cumulative months. mcy—Latest month, cumulative months, and twelve months. mqy—Latest month, three months, and twelve months. my—Latest month and latest twelve months. q—Latest quarter only. qc—Quarters cumulatively. qy—Latest quarter plus last twelve months.

What Others Think

Blackout in Britain

A REPORT on the grim prospects of a blacked-out winter due to power shortages in England appeared recently in *The Wall Street Journal.* Warren H. Phillips, writing from London, painted a word picture of the impending belt-tightening in the nationalized electric light and power industry.

Phillips wrote that the return of the blackout promises an industrial production crisis this winter, delayed defense timetables, and misery for the average Briton—in short, one more blow at the country's sagging economy. Unannounced power cuts have been suddenly dousing lights, slowing factory production schedules, and causing kitchen stoves to grow cold in some parts of England all summer. But this was only a mild foretaste of what's in store for Britons this winter.

Phillips continued that for some time government leaders, union chiefs, and executives of the nationalized electricity industry have been warning the British people to get set for the worst fuel and power crisis since February, 1947, when 100 per cent power cuts were imposed five hours a day. Factories had to close, men were thrown out of work, hearths were cold, homes were lighted by candles, and cancellations hit everything from subway trains to radio programs. The writer goes on:

> Lord Citrine, chairman of the British Electricity Authority, the public body that runs the power industry, says prospects for this winter are "grim." Sir Robert Gould, chairman of the government's national electricity advisory council, recently reported the outlook "is very serious indeed." Another member of this council, Tom Williamson, warned earlier this month: "Unless stern measures are taken, there's every indication of a serious industrial shutdown this coming winter, even in normal weather conditions."
>
> The government is asking industry to cut its power consumption 20 per cent during the peak-demand periods of eight in the morning until noon and four to five-thirty in the afternoon. This load-spreading will be sought from November to April. Working hours are to be staggered, and workers will be asked to work shifts in the wee hours of the morning wherever possible. Sir Mark Hodgson, chairman of the North Regional Industrial Board, has appealed to British housewives to do their housework in the evenings.

THE prospects of arbitrary action to curtail loads were discussed when Phillips noted that Lord Citrine recently said there was little doubt in his mind that "the extremely critical situation which is developing" is bringing the country "nearer the position where arbitrary action, enforceable by law, may have to be taken by the government to secure a substantial reduction" in power consumption.

He further added that one such "arbitrary action" would be installation of "load-limiters" in homes and offices. BEA is now "contemplating placing orders" for these gadgets, according to a spokesman. They might be set to operate when a load of four kilowatts, for example, is reached in the household. If more power were switched on, the load-limiter would automatically switch off all the home's electricity until the load was reduced below the allowed level.

Phillips reported that BEA officials reckon power cuts will be a familiar part of British life for seven or eight more years. Some say a decade. Behind this prospect of more cold, dark winters is the failure to install new generating plants at as fast a pace as the demand for electricity has been increasing.

The Wall Street Journal correspondent then noted:

> It's estimated the gap between supply and demand will have widened this winter to 1,800,000 kilowatts in normal weather and 3,100,000 kilowatts in severe weather during peak-load periods. The latter figure would put supply about 15 per cent behind demand. (Kilowatts measure the production capacity of electric generators, as distinguished from kilowatt hours, which measure the amount of electricity actually generated.)
>
> Yet even these estimates of the worsening power deficit are based on the assumption BEA will reach its goal of 1,000,000 kilowatts of new capacity installed this year. With little more than a quarter of that installed so far (about a 2 per cent expansion since the year's beginning), BEA officials now frankly admit they'll fall short. Meanwhile electricity demand has grown by an estimated 13 per cent in this year alone.
>
> Britain's dearth of generating capacity threatens to be compounded in the coming winter by a shortage of the coal the power stations burn and by a further shortage of railway cars to take the coal to them. Like electricity, the coal mines and railways are nationalized.
>
> "There can be a fuel crisis this winter which will be deeper and more severe than the coal crisis we had in the winter of 1946-1947," says Arthur Horner, general secretary of the National Union of Mineworkers. Government ministers and industrialists have been issuing similar gloomy statements.

The writer stated that the seeds of Britain's power shortage were sown in World War II, when antiquated generating plants could not be replaced and work could not be begun on new installations. In the six subsequent years of peace, however, government red tape and "planning" haven't exactly speeded the rate at which new power stations are going up.

He added that BEA officials charge that the government is not allocating them enough money for their investment program—although the Labor government found $4,522,000,000 out of its $11,751,000,000 budget this year to spend on welfare-state services.

PHILLIPS wrote that at the same time the government has rejected one traditional way to bring booming demand into line with supply—an increase in Britain's low electricity rates. For example, the rate per kilowatt hour for domestic and commercial users of .913 pence (roughly one U. S. cent) is less than half the average domestic rate of 2.88 cents in the United States. He went on to observe that with the then immediate prospect of an election, a rate increase would not be considered politic.

The reporter also wrote that the nationalized electricity industry itself is continuing to sell domestic electric appliances through its own retail outlets as a big sideline—and has made no move to check demand for electricity by stiffening the instalment purchase terms on these products.

Phillips concluded his report by noting that Britain's installed generating capacity at the beginning of this year was 14,600,000 kilowatts, compared with 9,365,000 kilowatts in 1938. In the last five years BEA has added 3,500,000 kilowatts of new capacity, according to the Ministry of Fuel and Power, yet in the same time this expansion was outpaced by a 4,750,000-kilowatt growth in the demand load. In the winter of 1946-47 the maximum gap between capacity and peak demand was 1,850,000 kilowatts—much less than the 3,100,000 maximum estimated for this winter.

—D. T. B.

WHAT OTHERS THINK

Electrical Buying Habits of Farmers

When farm families buy electrical equipment—and they buy a lot of it—they go to the retailer who handles their favorite brand, who provides adequate service, and who has a reputation for business integrity. Price and trade-in allowance get only slight consideration.

These and other important factors in farm family purchasing habits are revealed in a joint survey made by the research department of the Curtis Publishing Company for the Farm and Rural Market Development Committee, National Electrical Manufacturers Association, and *Country Gentleman,* national farm magazine. Electrical household appliances, farm production equipment, and lighting and wiring equipment were covered in the study.

Despite the fact that the 2,000 representative farm families surveyed reported buying substantial amounts of electrical equipment in the last five years, it was evident that the buying impulse generated within the family itself. They said retailers made little or no attempt to solicit their business. They were, however, generally satisfied with the selection carried and the service provided by the dealers patronized.

Farm families not satisfied with their electrical appliance dealer relations suggested that these dealers employ better trained men, make periodic checks of equipment, employ servicemen, hold demonstrations, operate a better repair service, and send customers information about new production.

Farm production equipment dealers were urged to have a better knowledge of their products, be interested in farm requirements, carry a complete line of parts, do a better servicing job, and make periodic checks of equipment sold.

Dealers of lighting and wiring equipment were given these suggestions: Be more prompt in answering service calls, carry more modern equipment and a larger stock, show more interest in the customer, know more about the products carried, check customers' needs periodically.

More than one-third of the families had made their last major appliance purchase from an appliance retailer and about one-sixth from a hardware dealer. Hardware stores and farm implement or general stores were most frequently mentioned as place of last purchase of production equipment. Appliance stores rated first as usual place of purchase of lighting and wiring equipment, followed closely by electrical contractors and hardware stores.

Electrical equipment purchases were concentrated in communities of less than 10,000 population, with most families traveling less than 16 miles to make such purchases. Most were satisfied with the location of retailers with whom they made their buys. They regarded the retailer as the chief source of information about both electrical household appliances, and farm production equipment.

The electrical contractor was named first information source for lighting and wiring equipment.

By far the vast majority of farm families surveyed indicated that so far as their electrical products needs were concerned, the retailers' sales and promotional efforts left much to be desired. Asked whether the dealer from whom they made their last electrical purchase had solicited further business by mail, telephone, or personal calls, the farm families reported as follows:

Household Appliances

	Yes	*No*
Direct mail	48.3%	51.7%
Telephone	5.8	94.2
Personal call	27.6	72.4

(89.6 per cent said they went to the dealer themselves to make the purchase.)

Production Equipment

	Yes	*No*
Direct mail	53.1%	46.9%
Telephone	9.7	90.3
Personal call	26.8	73.2

(80.3 per cent said they went to the dealer themselves to make the purchase.)

LIGHTING, WIRING EQUIPMENT
(Usual dealer, not necessarily last)

	Yes	*No*
Direct mail	35.4%	64.6%
Telephone	4.4	95.6
Personal call	18.7	81.3

(72.7 per cent said they went to the dealer themselves to make the purchase.)

Nearly 56 per cent said they bought their last major appliance from a particular dealer because he carried their preferred brand. About 40 per cent cited "service facilities" and more than one-third "past business dealing" or "reputation." Location and friendship for dealer also were mentioned prominently.

Nearly half (48.8 per cent) said their last piece of electrical farm production equipment was bought from the dealer who carried their preferred brand. Forty per cent cited "past business dealing." Also rated high were "service facilities" and "reputation."

"SERVICE facilities" ranked first in selection of the retailer for lighting and wiring equipment. "Reputation" and "location" were just a couple of percentage points away. Brand preference also ranked high.

"Price" and "good trade-in" were mentioned by only one or two per cent as the reason for patronizing a certain dealer in any of the categories.

Nine out of 10 of the families said they had bought major electrical appliances in the last five years. About 60 per cent said they had bought electrical farm production equipment during that time. More than seven out of ten reported having bought electric lighting and wiring equipment.

Asked what piece of household equipment they had last bought, about one-third named refrigerators. Other leading items for the home last bought were ranges, washers, home freezers, and water heaters. Nearly 40 per cent said the last piece of production equipment they had purchased was an electric pump. About one-sixth had bought an electric motor.

Another one-sixth named a milking machine.

Notes on Recent Publications

FIGHT NOW FOR A SOUND DOLLAR! This is the appeal which the noted economist, Edwin G. Nourse, makes in his small book, entitled *The Nineteen Fifties Come First.* Dr. Nourse is best remembered for his three years of service as the first chairman of the President's Council of Economic Advisers. He resigned from this position when he found that "under existing circumstances, the council could not operate as a professional and nonpolitical agency." While this book is not an "answer" to George Orwell's 1984, the title of Nourse's book and some of its contents were influenced by serious consideration of that perhaps pessimistic, Orwell novel. To Dr. Nourse, the 1950's are our chief concern and he is particularly alert to the dangers of inflation. It is not a political book, but treats of our economic affairs in their political setting. Dr. Nourse feels that inflation is the great threat to our economy in this decade. He sees inflation as an understandable and controllable result of the foolish and self-indulgent things we ourselves do in our domestic affairs, particularly in our actions as voters. Perhaps the word is inaction, he suggests. For those who read the Orwell novel, a reading of this thoughtful book on our immediate problems will be an interesting experience. Nourse considers in Chapter One the question of "'Big Brother' (Authoritarianism) or Self-discipline?" THE NINETEEN FIFTIES COME FIRST, by Edwin G. Nourse. 184 pages. Henry Holt & Co. New York, 1951. Price, $2.

SUBSIDIZING THE CITIZEN. A consideration of this practice, started at the time of the "New Deal," is covered in a 200-page book by Jules Abels. Direct financial aid to the people by their government and the implied mortgage on America's future are placed under the lens. The expansion of the principles of the New Deal relief programs and their incorporation in the more ambitious program of the "Welfare State" are sketched by the author. What are the consequences of a government policy directed toward making the lives of Americans risk-proof and provide a perpetual boom? The author takes up the origin of the Welfare State idea and its future consequences. THE WELFARE STATE, by Jules Abels. Duell, Sloan & Pearce, Inc. New York, 1951. Price, $3.

The March of Events

In General

To Sell Alberta Gas

NORTHWEST NATURAL GAS COMPANY and Canadian Gulf Oil Company recently concluded an agreement for disposal of southern Alberta's big Pincher Creek gas reserve over a 25-year period. Details were given in an agreement filed with the Alberta Petroleum and Natural Gas Conservation Board.

Northwest agrees to pay 10¾ cents a thousand cubic feet for the first three years and one-fourth cent more a thousand cubic feet for each of the following twenty-two calendar years for export of 80 billion cubic feet a year.

The agreement is predicated on Northwest supplying the Pacific Northwest market of the United States, Vancouver, and other centers.

Gulf will have the right to terminate the contract if Northwest has not obtained all necessary permits from the Alberta government by February 15, 1952, and all Canadian and United States Federal permits by August 15, 1952.

Northwest proposes construction of a 24-inch pipeline, to cost $71,611,000.

During the first year of delivery Northwest must buy at least 90 per cent of its requirements from Gulf.

Florida

Higgins Plant Dedicated

THE Florida Power Corporation last month dedicated the first unit of its projected $20,000,000 Higgins plant at Booth Point near Oldsmar. The unit towers 12 stories high and was built at a cost of approximately $7,000,000. Present at its dedication were state, county, and municipal officials, and Pinellas county civil leaders.

U. S. Senator Spessard L. Holland, principal speaker at the ceremonies, was introduced by FPC President W. C. Gilman, who acted as master of ceremonies.

Holland said the plant demonstrates that "Florida is a profitable outlet for investment capital." He praised A. W. Higgins, former president of Florida Power Corporation, and traced the growth of Florida Power "from small beginnings in the late nineties" until the present. Noting that FPC serves nine electric co-operatives, Holland said this typifies growing teamwork between private industries serving heavily populated areas and co-operatives serving rural areas.

Massachusetts

Temporary Gas Rates Approved

A $270,000 reduction in gas rates became effective last month for customers of the Haverhill Gas Light Company and Lowell Gas Company. The new rates, approved by the state public utilities commission, will remain in effect

pending approval of permanent charges for natural gas.

The Haverhill reduction, affecting 22,141 customers, represents an over-all saving of 10.1 per cent or $121,395 a year, the company said. Conversion of appliances in preparation for distribution of natural gas was reported to have begun last month.

The Lowell Company's rate cut affected 29,680 customers. The company estimated the reduction at 4.2 per cent for small users, ranging up to 22.7 per cent for large consumers.

Mississippi

Sale Agreement Reached

An agreement has been reached for the sale of Mississippi Power & Light Company's natural gas properties to the Equitable Securities Corporation of Nashville, Tennessee, for approximately $11,000,000, it was announced recently.

The transaction, largest sale of public utility holdings in state history, will become effective around the first of the year and is in keeping with the Public Utility Holding Company Act passed by Congress in 1935.

Mississippi Power & Light Company previously withdrew from the transportation field, disposing of streetcar, bus, and railway holdings in Jackson, Vicksburg, and Greenville in 1939. Water properties held by Mississippi Power & Light in several state localities also have been sold.

Equitable Securities Corporation, purchaser of Mississippi Power & Light Company's natural gas properties in 52 cities, towns, and communities, proposes to organize a new company incorporated in Mississippi to be known as the Mississippi Valley Gas Company to operate the gas systems.

Mississippi Power & Light Company will continue to operate the gas properties for the new owners until separate offices can be obtained and the new organization completed. Current estimates indicate that the new gas company will be able to assume complete operations about March 1, 1952.

The proposed sale is subject to final approval by the Securities and Exchange and Federal Power commissions.

Missouri

Public Ownership Certain

The Public Service Company's policy of reducing streetcar and bus service while increasing fares, if continued, will make public ownership of mass transit facilities inevitable, James E. Crowe, St. Louis city counsel, said recently.

Crowe, who is chairman of the Metropolitan Mass Transportation Commission, reiterated the earlier position taken by him and Mayor Joseph M. Darst against outright municipal ownership of a transit system. He said he favored purchase and operation of the transit system by a metropolitan authority independent of municipal government and not subject to "political stresses."

The big task facing the community, Crowe said, is to make mass transportation more attractive to the riding public. He added: "I doubt if the people can get adequate service under private operation."

He said that under any plan of public ownership which might be adopted in St. Louis, control over the system should be held by public representatives even though operation might be left to private management.

There were indications at Jefferson City that adequacy of service would be examined by the state commission when it hears the company's application for a $2,600,000 fare increase some time this month.

Nebraska

Sale of Plants Voted

THE sale of the Lingle and Guernsey hydroelectric plants to the Bureau of Reclamation was approved by an overwhelming majority last month.

The three irrigation districts—Pathfinder, Goshen, and Gering-Fort Laramie—voted 98 per cent in favor of the transaction.

Actually, the vote approved only the sale of revenues of the two plants, first to be set up in the country on a reclamation basis. At the time their operations were turned over to the irrigation districts, title to the plants themselves was kept by the government.

The sale price involved in the present transaction is $6,636,873. The deal now goes to the Bureau of the Budget, which must make a recommendation to Congress. The government wants to take over operation of the plants to fit them into the Missouri valley power system.

New York

State Fights Natural Gas Rate Rise

OPPOSITION to a proposed 16 per cent increase in the wholesale price of natural gas in the New York area was voiced recently by the state public service commission on the ground that it would result in higher rates to householders and other consumers.

The commission announced that it had protested to the Federal Power Commission the proposed increase by the Transcontinental Gas Pipe Line Corporation and that it had requested public hearings on the matter.

New Electric Rates Filed

THE New York State Electric & Gas Corporation last month filed new rate schedules with the state public service commission providing for an increase in electric rates to its residential, commercial, and industrial customers in its south-central and eastern service areas.

The company estimates that the new schedule—the first general increase in its electric rates in more than thirty years—will produce, on the basis of present customer use, about $2,500,000 of additional electric operating revenues annually.

Wisconsin

Utilities Ready to Supply Needs

WISCONSIN utilities expect to be able to supply all anticipated electric and gas needs of the public through 1954. That prediction was made last month by E. H. Cotton, president of the Wisconsin Utilities Association and vice president of the Northern States Power Company, Eau Claire. He spoke at a joint session of the technical and sales divisions of the association at their convention in Milwaukee.

Cotton said that utilities in the state have expansion programs under way that are estimated to cost $243,000,000.

The only foreseeable interferences with construction schedules are possible delays that might result from inability to obtain Federal allocations of equipment and materials, Cotton said.

"The total electrical capacity to be added in 1951 through 1954 amounts to approximately 565,000 kilowatts," Cotton said. "Company managements anticipate that this tremendous increase in capacity will be adequate to supply the public's increased usage over the next four years."

The gas industry also plans corresponding extensive expansion programs, he said.

Progress of Regulation

Electric Company Rather Than Co-operative Allowed to Serve

The Wyoming commission, in entertaining rival applications of an electric company and a rural electric association to serve the same rural area, granted a certificate to the company. The certificate authorized the company to expand its service lines and facilities into a rural and urban area contiguous and adjacent to its major operations, even though the proposed operations in the area might result in a small financial loss.

The commission was of the opinion that an electric company should be allowed to extend its service into rural communities whenever it is economically feasible for it to do so, provided the public therein can be furnished with adequate service at reasonable rates. Such extensions, it said, conserve public funds for allocation by the Rural Electrification Administration to co-operative electric utilities serving rural areas which cannot obtain electric service from companies at reasonable rates. The granting of the contested area to a rural electric association could be justified only upon the theory that the potential market would establish the required customer density to enable it to serve the farms and ranches in a near-by uncontested area.

The rural electric association's project was in the planning stage. There was no assurance that the Rural Electrification Administration would allocate funds for the project. Furthermore, the commission pointed out that it could not compel the rural electric association to serve the area if it was not economically feasible for it to do so. It concluded that potential customers in the contested area should have the benefits of electric service as soon as possible. Therefore, it did not believe that the private company should be denied the right to serve merely because the rural electric association might be able to serve an uncontested area at some future time if the contested area were allocated to it.

In so ruling, the commission found that the existing industrial loads in the uncontested area which would be served by the rural association would enable it to serve the farmers and ranchers there without the contested area which it was seeking to serve in this proceeding. *Re Rawlins Electric Co. et al. Dockets Nos. 605 Sub 5, 9060 Sub 2, October 8, 1951.*

State Commission May Not Regulate Rates Fixed by Federal Commission

A state commission may not exercise jurisdiction over an electric company's rates while a Federal Power Commission order fixing rates for that company remains in force. A Federal district court so held in an action to enjoin the Pennsylvania commission from regulating rates for a portion of the electric energy generated and sold by Safe Harbor Water Power Corporation. It said that where there is a conflict between Federal and state power over the same subject matter in the field of interstate commerce, the Federal power is supreme.

In 1941, the United States Circuit Court of Appeals had decided that the Federal Power Commission did not have jurisdiction over Safe Harbor's rates because it was not shown at that time that the states of Pennsylvania and Maryland were unable to agree on rates to be charged by Safe Harbor for electric energy generated and transmitted by it in interstate commerce. Safe Harbor Water Power Corp. *v.* Federal Power Commission (1941) 124 F2d 800, 44 PUR NS 330. However, in 1944 the Federal Power Commission, at the request of the Maryland commission, instituted a new rate investigation and reduced the company's rates. *Re* Safe Harbor Water Power Corp. (1946) 5 FPC 221, 66 PUR NS 212. In this case the Federal commission ruled that it had jurisdiction to regulate the company's rates.

Subsequently the Pennsylvania commission undertook to prescribe different rates than those fixed by the Federal commission. Public Service Commission *v.* Pennsylvania Water & Power Co. (1948) 76 PUR NS 49. Eventually the Federal court of appeals upheld the Federal Power Commission's power to regulate the rates. Safe Harbor Water Power Corp. *v.* Federal Power Commission (1949) 179 F2d 179, 84 PUR NS 344.

The Pennsylvania commission contended that the court, in affirming the order, relied upon an agreement whereby Safe Harbor had agreed to sell its entire output to two companies. This agreement was held to be invalid. The Pennsylvania commission urged, therefore, that the invalidity of the agreement destroyed the basis for the finding of the "integrated interstate electric system," and thereby invalidated the Federal Power Commission rate order.

The court held that a rate order is not illegal merely because it is a result of a conspiracy in restraint of trade in violation of the Antitrust Act. It said that antitrust laws are superseded by more specific regulatory statutes to the extent of the repugnancy between them. The court decided that the invalidity of the agreement, therefore, did not invalidate the Federal rate order. Consequently, it held, the state commission order regulating rates, already fixed by the Federal Power Commission, was null and void. *Consolidated Gas E. L. & Power Co. v. Siggins et al. 99 F Supp 151.*

Disqualification of Commissioners in Holding Company Reorganization Proceedings Refused

The Securities and Exchange Commission overruled objections to the participation of Chairman McDonald and Commissioner Millonzi in pending proceedings relating to applications for an allowance of fees and the reimbursement of expenses in connection with the reorganization of the United Corporation under § 11(e) of the Holding Company Act. The objections were based primarily upon statements made by the commission in a press release and by the chairman in a letter to a newspaper.

The release and letter were in response to reports, published and made the subject of newspaper editorial comment, that a congressional investigation had been ordered with respect to the commission's alleged favored treatment of the United Corporation, in administrative proceedings relating to its compliance with the requirements of the Holding Company Act.

No one claimed that either of the challenged commissioners had any personal interest in the case, or any personal relationship to any of the participants in the proceedings.

The statements complained of were issued pursuant to the authority of the entire commission. It was said they were made in the discharge of what the commission considered to be its responsibility as an agency accountable to the Congress, and ultimately to the public, to respond promptly to charges affecting

the integrity of its administration. The commission believed that the publicized charges were of a nature to cause unwarranted doubt and uncertainty in the minds of the public, Congress, and the investors in the corporation as to the integrity of its processes and its decisions with respect to that corporation.

The commission held that the exercise by an administrative agency of its public responsibilities to respond to public charges respecting its administration cannot disqualify the agency from continuing to exercise its quasi judicial functions with respect to matters which may have a relationship to the subject matter of public discussion. It concluded that to hold otherwise would tend to limit its freedom to carry out its public responsibilities in both respects.

In concluding that the charge of disqualification was wholly without basis, the commission said that while the issues to be decided in connection with the fee applications were of a relatively limited nature and might readily be disposed of by the other three commissioners, and while it was naturally distasteful to participate in a decision after having been charged with bias, it believed that public officials should not step aside from the discharge of the responsibility inherent in their positions in response to the type of objection made in this case. *Re United Corp. File No. 54-158, Release No. 10786, September 27, 1951.*

Tele-magnet Found to Be Unsuitable Answering Device

THE California commission dismissed a complaint made by a distributor of the tele-magnet, a type of telephone-answering device, against a telephone company's rule prohibiting foreign attachments. The distributor's proof was not as complete as it might have been if it had not assumed that the commission would take judicial notice of the evidence presented to commissions in other states on behalf of the tele-magnet.

The commission undertook to answer this question: "Is the tele-magnet an appropriate and satisfactory device for the receiving, answering, and transmitting of telephone messages?"

The president of the distributing company testified at some length as to the operation of the device. The commission summed up his testimony in these words:

> He described the tele-magnet as an electronic device, 15 inches by 26 inches by 8 inches in height, which operates on the induction principle with no direct connection to the telephone, and is used in connection with the French-type telephone. He stated that when the telephone is placed on the tele-magnet and the telephone rings an induction coil within the tele-magnet picks up the impulse from the base of the telephone, charges a tube which discharges through a condenser which in turn actuates a relay which starts the machine in motion, an arm raises the receiver, and a phonograph recording with the outgoing message, which can be varied to suit conditions, starts playing into the telephone mouthpiece from a loud-speaker. Generally, Mr. Doe testified, the outgoing message advises the calling party that there is no one in the office and that if he will leave a message it will be recorded. The calling party is advised to "please start talking after the chimes." The total period allowed from the time the machine starts to answer until it hangs up is one minute. He testified that, in practice, twenty to twenty-five seconds are allowed for the outgoing message and the balance of the minute for the incoming message.

The commission determined, after hearing all the distributor's witnesses (none of whom were technical men) and three witnesses for the company (all experts in the field of telephony) that the device is unsatisfactory in that it is unsuitable of connection with all types of telephones and is susceptible of impair-

ment or interference with normal telephone service. *Doehart Corp. v. Pacific Teleph. & Teleg. Co. Case No. 5725, Decision No. 46237, October 2, 1951.*

Average Book Value Used for Telephone Rate Base

THE Idaho commission rejected proposed telephone rate bases predicated on (1) average investment for the preceding year, (2) an allocation of capital structure based on an apportionment of net intrastate plant, and (3) appraised value recomputed to reflect present construction costs.

The rate base which the commission used was arrived at by taking the average original book value of the property and adding to it a sum representing the amount intrastate investments actually increased during the test year used in the proceeding.

The company was authorized to increase rates so that a return of 6.5 per cent would be earned on this rate base. *Re Interstate Teleph. Co. Case No. U-1002, Order No. 2099, October 2, 1951.*

Estimates of Future Revenues Rejected Because of Failure to Consider New Subscribers

THE New Jersey Board of Public Utility Commissioners, after finding that a telephone company's present rates, from which a return of one per cent was being earned, were inadequate, rejected, as excessive, company schedules which would yield a return of 9.6 per cent. The commission directed the company to file rates to produce a return of 6 per cent.

Evidence offered by the company in support of a reproduction cost valuation of its property was given little consideration inasmuch as it reflected the plant in use four years earlier with repricing being done without further inspection of its property. The commission also commented on the statement of a company witness that the plant would not be reproduced in its present form.

Estimates of future revenues were rejected as too low because they did not give effect to subscribers to be connected as a result of improvements for which allowance was made in the company's rate base.

Uniform exchange rates for which the company sought approval were found to be discriminatory because the value of service in large exchanges was far greater than in small ones. *Re West Jersey Teleph. Co. Docket No. 5533, October 10, 1951.*

Coal, Labor, and Railroad Interests May Challenge Natural Gas Pipeline Authorization

THE United States Court of Appeals, although affirming a Federal Power Commission order authorizing a natural gas pipeline to serve an atomic energy plant, upheld the right of coal, labor, and railroad interests to appeal. The appeal was brought by a trade association of competing coal companies and unions of coal and railroad employees.

The order was found to be supported by substantial evidence. The court deemed it sufficient that the commission properly assessed great weight to the Atomic Energy Commission's view that the safety and well-being of the nation required use of natural gas as a fuel at one of its plants. The proposed pipeline would adequately provide the gas needed for the manufacture of fissionable materials.

One threatened with financial loss through increased competition resulting from a commission order is aggrieved and entitled to a review, despite the fact

that the statute under which he seeks review is designed to keep competition alive.

The review provisions of the Natural Gas Act were held to be valid and to authorize a class of persons to appeal to prevent unlawful official action in order to vindicate the public interest, although no personal substantive interest of such persons would be invaded.

The trade association and labor unions traced their injury to the displacement of coal by natural gas, resulting from the issuance of the certificate. The coal companies would lose markets previously enjoyed by them. Their employees would lose jobs to the extent that new markets could not be found. Employees of railroads which compete with pipelines as carriers of fuel would be similarly affected.

Consequently, the court considered these parties to be "aggrieved" within the meaning of the Natural Gas Act and, therefore, entitled to appeal from the order.

Judge Clark agreed with the result but did not believe the parties were entitled to appeal. He noted that neither the coal associations nor the United Mine Workers claimed or attempted to prove that a single miner or mine owner belonging to either of these organizations would be in any way affected by the construction of the pipeline. They merely showed that they represented a high percentage of miners and mine owners.

Judge Clark believed that the loss of business was not reasonably certain and definite, since it was not shown that the reduction caused by the loss in this instance could not be made up by sales to other outlets. He observed that no seller or producer of coal or any other fuel, or railroads or any other form of transportation, have a vested right to force consumers to retain dependence on a fuel or a form of transportation in which they have lost confidence. If they lose business, he said, it is largely because of their own antics in creating frequent crises, by way of strikes or threats of strikes, which leave the users at the mercy of their whims.

In this case there was a special consideration in so far as public convenience and necessity was concerned. It was shown that it was necessary to operate the atomic energy plant continuously and that if the boilers should be shut down for even five minutes, it would require at least two to three years to get them in full operation again. Under such circumstances Judge Clark deemed it folly to say that this vital defense effort should be left to the tender mercies of the objecting parties here, with the strong possibility that at some crisis in our affairs this important security agency might be suddenly paralyzed. The Federal Power Commission, he thought, wisely and properly followed the recommendation and request of the Atomic Energy Commission. *National Coal Asso. et al. v. Federal Power Commission, 191 F2d 462.*

Zone Fares of Transit Company Upheld

To grant a municipality's petition to substitute a straight cash fare for zone fares on certain transit lines, where such a substitution would cause a diminution of revenues and where an almost simultaneous order will permit the company to raise fares generally over all its operations upon an adequate showing of absolute necessity, would be inconsistent, in the absence of a more compelling argument than the understandable desire of the persons affected for lower rates, held the Massachusetts Department of Public Utilities.

The transit lines in question extended to the municipal limits, which constituted what could be called a suburban area. Zone fares, said the department, cannot be interpreted as being unreasonably discriminatory against persons who choose to locate their residences in what are essentially suburban areas but which are still within the corporate limits of the municipality.

The department pointed out that the costs of operation of any carrier are a direct function of the distance covered by its operations and that it is impossible in an intraurban operation to reflect this truth accurately in rates, as is the general practice in long-haul operations. A certain rough justice, it was said, can be obtained in local areas by dividing the runs into zones according to which the riders whom the carrier is obligated to carry the longest distance pay the largest amount per ride. *City Council of Springfield (Massachusetts) v. Springfield Street R. Co. DPU 9243, September 14, 1951.*

Private Carriage Determined by Lessee's Control

THE leasing of trucks to a company by one of its employees for transportation of the company's products was held, by the Louisiana commission, to be free from regulatory control. Carriage for hire did not result. The trucks were leased on a yearly basis for a stipulated sum monthly, regardless of whether the trucks were operated or not. The company hired and paid the drivers, none of whom were supplied by the lessor. Maintenance and operation of the trucks were assumed by the company.

It was pointed out, however, that the practice of leasing trucks to a company for the transportation of its goods must be carefully watched, because many abuses and subterfuges can occur. Each such case must be determined on the facts presented. *Louisiana Pub. Service Commission v. Breaux, No. 5848, Order No. 5827, August 4, 1951.*

Other Important Rulings

A FEDERAL district court, on setting aside an order of the Interstate Commerce Commission denying a railroad's request for equalization of rates to certain ports, held that the commission order, based on an ultimate conclusion that the proposed schedules were not shown to be just and reasonable, without setting forth basic findings to support such conclusion, was improper where the railroads established *prima facie,* that the proposed schedules were just and reasonable. *New York Central R. Co. et al. v. United States et al. 99 F Supp 394.*

Transit rates which would result in an operating ratio of 96 per cent and a return of 7.4 per cent on net carrier operating property were considered adequate by the Massachusetts commission to provide the company with a sufficient return to insure public confidence and enable it to market its securities. *Re Middlesex & Boston Street R. Co. DPU 9443, September 14, 1951.*

The Pennsylvania commission dismissed the complaint of several homeowners against a motor transportation company's request for authority to change its routes, in compliance with a request of the police bureau, where the basis of the complaint was that the noise, vibration, and fumes would constitute an interference with their private enjoyment of their homes, since this type of protest is of a private nature and properly a matter for the courts. *Re Philadelphia Transp. Co. Application Docket No. 59145, F.11, Am-G, September 4, 1951.*

The Pennsylvania commission allowed a street railway and bus company working capital equaling only those amounts of cash required to be paid out as a new enterprise for operating purposes up to the time that it received revenues from its patrons. *Pittsburgh v. Pittsburgh Railways Co. Complaint Docket No. 15135, September 4, 1951.*

A return of 12 per cent on the net operating plant of a bus operator was not considered unreasonable by the Massa-

chusetts commission, because of the fact that in an individual proprietorship no provision is made in the salary account for owner's wages. *Re Hudson Bus Lines, DPU 9535, September 14, 1915.*

An equipment interchange agreement between two air carriers, providing for through service to the public, was approved by the Civil Aeronautics Board where it was found not to be adverse to or inconsistent with the public interest or in violation of the Civil Aeronautics Act. *Re Mid-Continent Airlines, Docket No. 4926, October 10, 1951.*

The Louisiana commission refused to grant authority to transfer a portion of a motor carrier's operative rights to a carrier in the same territory because it would have the effect of placing in operation on the public highways numerous carriers for which there might be no public need. *Ex Parte Enloe et al, No. 5831, Order No. 5826, August 4, 1951.*

The Louisiana commission held that proposed telephone rates that would yield a return of 6 per cent were fair and reasonable. *Ex Parte Knight (Elizabeth Teleph. Co.) No. 5794, Order No. 5792, August 4, 1951.*

The Idaho commission allowed a water utility a rate increase sufficient to provide it with a return of between 6 per cent and 6.5 per cent. The commission allowed the company working capital amounting to one-twelfth of its annual operating expenses less depreciation and taxes. *Re Citizens Utilities Co. Case No. U-1007, Order No. 2100, October 2, 1951.*

The Colorado commission denied a motor carrier authority to haul certain products where no customer witnesses testified as to the need for such service and where protests were made by common carriers serving the area, because a certificate will not be granted until there is shown a definite need for the service and that the service will not impair the services of existing carriers. *Re Winn, Application No. 11333-PP, Decision No. 37409, September 26, 1951.*

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Titles

Index

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HAWAII PUBLIC UTILITIES COMMISSION

Re Honolulu Rapid Transit Company, Limited

Docket No. 1119, Decision No. 125, Order No. 731
September 17, 1951

APPLICATION *by transit company for authority to increase rates; modified rate increase authorized.*

Return, § 108.1 — Transit company — Operating ratios.

1. The Commission, in exercising control over transit companies, should give careful consideration to the relationship of operating expenses to revenues, since the operating ratio of a transit company is a good test of the reasonableness of its earnings, p. 131.

Return, § 108.1 — Transit company — Operating ratios.

2. Operating ratios approximating 88 per cent before income taxes and 94 per cent after income taxes were considered reasonable for a transit company, p. 133.

Rates, § 524 — Transit company — Zone fares.

3. Zone fares were authorized for a transit company, despite the fact that this would place an unexpected burden on people who had established their homes in outlying and suburban areas, where it appeared that the institution of zoning could no longer be deferred without prejudice to the long-term welfare of the company and its patrons as a whole, p. 135.

Revenues, § 3 — Estimates of passenger revenues after rate increase — Declining patronage.

4. A diminution factor of 2½ per cent was considered proper in computing the loss in patronage of a transit company because of increased rates, p. 137.

Expenses, § 49 — Pension costs for plan not yet in operation.

5. A transit company's requested expense allowance for pension costs for bargaining unit employees was disallowed where there was nothing in the record to show that such costs would be incurred except that the company desired to place a pension plan for such employees in effect, and where it was doubtful that these employees would agree to the plan in the near future, p. 139.

Depreciation, § 16 — Basis — Property offered for sale — Old trolley coaches.

6. Estimated depreciation on trolley coaches offered for sale by a transit company was excluded from depreciation expense, since a ratepayer should not be required to bear the cost of depreciation on inoperative property, p. 140.

Valuation, § 270 — Land owned — Original cost — Appraisal.

7. Land owned by a utility and used in its service to the public should be included in its rate base at its original cost rather than its appraised value, p. 140.

Return, § 6 — Basis — Transit company — Operating ratio — Rate base.

8. The reasonableness of the rates of a transit company was tested by three methods: (1) the operating ratio resulting therefrom, (2) the adequacy of the net income produced to meet the company's reasonable financial requirements, and (3) the relationship of such net income to the rate base, expressed in per cent, with the first two tests being given as much or more weight than the third, p. 141.

Return, § 108 — Transit company — Dividend and interest requirements.

9. Rates were authorized for a transit company which would be adequate to meet its financial requirements in that they would cover fixed interest charges and preferred stock dividends and permit payment of common stock dividends of 6 per cent or 8 per cent, with carry-overs to earned surplus, p. 142.

Return, § 108 — Transit company.

10. A transit company was authorized to charge rates which would yield a return of 8.86 per cent on its rate base and an operating ratio of 94.05 per cent after taxes, p. 143.

(O'DOWDA and LYCURGUS, Commissioners, dissent.)

APPEARANCES: For Honolulu Rapid Transit Company, Limited, Robertson, Castle & Anthony By A. L. Castle and W. F. Quinn; for the Commission, M. Watanabe, Assistant Attorney General.

BY THE COMMISSION:

This matter came before the Commission upon application filed February 5, 1951, by Honolulu Rapid Transit Company, Limited, wherein applicant requested approval of:

(1) Establishment of 12 fare zones as set forth on the zone map attached hereto as Exhibit 1 and by reference made a part hereof.

(2) Permanent increased rates of fare, with full transfer privileges on all connecting service lines within, and terminating within, the particular zone, subject to the company's rules relating to such transfers, as follows:

Adults—	
Intrazone	
Cash	15¢
Tickets	8 for $1.00
Interzone	
Cash	5¢
School Fares—	
Intrazone	
Tickets	8 for 50¢
Interzone	
Tickets	5 for 15¢

(3) An interim full fare of 13 cents cash, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers.

On May 22, 1951, applicant amended its original petition so as to request approval of:

(1) Establishment of three fare zones as set forth on Exhibit 1 hereto and marked Zones 1, 2, and 3. [Exhibit 1 omitted.]

(2) Increased rates of fare as follows:

(a) *Full Fare Passengers* — 13 cents cash or 5 tickets for 55 cents, with an additional fare of 5 cents cash, or a ticket sold at the rate of 5 for 15 cents, for passengers crossing the boundaries between zones 1 and 2 or between zones 1 and 3, with full transfer privileges on all connecting serv-

ice lines within any zone for which the fare has been paid, subject to the company's rules relating to such transfers.

(b) *School Fares*—10 cents cash or 5 tickets for 25 cents, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers.

(c) *Express Service to and from Pearl Harbor*—20 cents cash with no transfer privileges.

Pursuant to duly published notice, public hearings in the matter were held in Honolulu beginning on May 24th and continuing through May 26, 1951. During the hearings, both applicant and the Commission's staff, hereinafter referred to as the "staff," presented complete cases covering actual and estimated results of the company's operations under present and proposed rates. At the close of the hearing on May 26th the matter was submitted for decision. Subsequent to the close of the hearings, the company, pursuant to instructions of the Commission, filed certain additional information for the record relating to applicant's expenses in connection with this proceeding, the charge of pension costs to operating expenses and the insured pension plan for applicant's employees.

Nature and History of the Company's Operations

The company is a mass transportation common carrier operating under a franchise to serve the city of Honolulu, granted by the legislature of the republic of Hawaii on July 7, 1898, confirmed and ratified by the Congress on April 13, 1900, approved by the President of the United States on July 25, 1900, and subsequently amended from time to time.

The history of the company's operations to 1949 is set out at some length in Commission's Decision No. 110 issued in Docket No. 986. Since that time a number of route changes, consolidations, and extensions have been authorized by the Commission, and it may be stated generally that the main parts of the city of Honolulu and its outlying districts have scheduled service in proportion to revenues, and in some instances, more so.

Applicant's present routes serve Honolulu from Koko Head on the east to and inside Pearl Harbor Naval Shipyard, Hickam Field, and Fort Kamehameha on the west, all important residential valleys and heights on the north, and to the seashore and Sand Island on the south. Its one-way route mileage is 18.8 miles on the company's two trolley coach lines and 106.3 miles on its 17 gasoline and Diesel bus lines.

Applicant's present fleet consists of 287 vehicles, made up of 172 automotive busses with an average age of 6.1 years, and 115 trolley coaches with an average age of 10.0 years.

Applicant's principal fare changes since August 14, 1923, the inaugural date of its first bus transportation operations, are summarized in the following tabulation of Commission orders: [Table on p. 132.]

General Discussion

[1] Before reviewing the evidence presented by applicant and the staff dealing with the financial results of operations under present and proposed rates and alternative fare plans, we deem it advisable to discuss certain aspects of the company's proposals which confront this Commission with problems relatively new to its experience.

Order No.	Full Fares in Cents	From	To	School Fares in Cents	From	To
84	Cash	5	7	Tickets	$2\frac{1}{2}$	$3\frac{1}{3}$
Sept. 19, 1924	Tickets	$3\frac{1}{3}$	$6\frac{1}{4}$	(only)		
		(15 for 50)	(4 for 25)			
103	Cash	7	10	Cash		5
Apr. 12, 1928	Tokens	$6\frac{1}{4}$	$7\frac{1}{2}$	Tokens	$3\frac{1}{3}$	$3\frac{3}{4}$
		(4 for 25)	(2 for 15)			(4 for 15)
						(Without)
						(Transfers)
166	Cash	10	No Change	Cash (only)	5	No Change
Aug. 23, 1934	Tokens	$7\frac{1}{2}$	No Change	Tokens	(ELIMINATED)	
		(2 for 15)				
359	Cash	10	No Change	Cash	5	No Change
Jan. 29, 1941	Tokens	$7\frac{1}{2}$	No Change	Tokens	None	$3\frac{3}{4}$
		(2 for 15)				(4 for 15)
427	Cash	10	No Change	Cash	5	No Change
June 24, 1943	Tokens	$7\frac{1}{2}$	$6\frac{2}{3}$	Tokens	$3\frac{3}{4}$	$3\frac{1}{3}$
		(2 for 15)	(3 for 20)		(4 for 15)	(3 for 10)
500	Cash	10	No Change	Cash	5	No Change
June 27, 1946	Tokens	$6\frac{2}{3}$	8	Tokens	$3\frac{1}{3}$	4
		(3 for 20)	(5 for 40)		(3 for 10)	(5 for 20)
*587	Cash	10	No Change	Cash	5	No Change
June 24, 1948	Tokens	(ELIMINATED)		Tokens	4	No Change
					(5 for 20)	
629	Cash	10	No Change	Cash	5	
May 26, 1949	Tokens	(ELIMINATED)		Tokens	(ELIMINATED)	

* Interim order for trial period under Docket No. 986 to November 30, 1948. Extended by Order No. 608, 120 days to March 30, 1949. February 28, 1949, Commission extended trial period of Order No. 608, 60 days to May 31, 1949.

These are the proposed test of the adequacy of earnings by the use of operating ratios and the proposed establishment of a zone fare system.

Operating Ratio

In presenting its case applicant urged that the Commission test the reasonableness of its proposed fares by the use of the operating ratio method. It contended that such test should be given greater weight in the Commission's determination than the conventional method of testing its earnings by relating them to its rate base.

Financial analysts have long considered operating ratios to be one of the fundamental tests of the financial well-being of profit-seeking companies. Such ratios are significant indicators of the degree of margin between expenses and revenues, affording a ready measure of proximity to the "break-even" point. They show how close a company is to meeting its expenses; in other words, the margin of profit for investors. They also readily indicate the percentage of upward variation in operating expenses which may occur before a company goes "into the red."

Regulatory bodies have for many years tested the reasonableness of utility rates by determining a "fair return" on the capital invested in the enterprise, such fair return being expressed as a per cent of the capital base and referred to as the "rate of return."

Transit companies differ fundamen-

tally from most other utilities in several important aspects. Compared to other utilities, their invested capital is generally small in relation to annual income and expenses, in most cases being less than the revenues or expenses and in many cases much less. In addition, a high proportion of the total investment of most transit companies is in short-lived vehicular equipment, which fact tends to cause sharp variations in the depreciated rate base from year to year. These narrow and unstable rate bases of transit companies make very shifty footings upon which to base findings as to fair rates of return. Besides being cursed with sharply variable and narrow rate bases, transit companies generally have operating expenses made up of an unusually high proportion of labor and other items which are extremely sensitive to economic pressures in the community, as compared to other utilities. Revenues of transit companies are also sensitive to changes in the local economy—unemployed persons do not ride the busses; private automobiles compete for a transit company's business; and, when funds are scarce, short-haul riders walk.

It is argued by some authorities in the field, and we believe that the argument has merit, that the risk to investors in transit properties is in operating expenses rather than the capital investment. This is so because a transit company's output of service is not readily adaptable to changes in the demand therefor, as is the case for most other utilities. Schedules once established must be carried out for certain periods of time and unused seat miles represent total economic loss, which can never be recovered. For these reasons we are of the opinion that regulatory bodies, in exercising control over transit companies, may properly give careful consideration to the relationship of operating expenses to revenues. We believe operating ratio is an ideal tool to use in examining this relationship.

The record shows that operating ratios are gaining the favor of regulatory bodies as a test of reasonable earnings for transit companies and have been so used in recent years by the Interstate Commerce Commission and a number of state agencies.[1]

We do not, however, regard the operating ratio test as replacing the determination of a fair rate of return or as differing fundamentally from the "fair return" conception. We regard the operating ratio test as a suitable method of determining what a fair rate of return is for this particular and peculiar type of utility. Such fair return, when expressed as a percentage of the rate base, may appear to be alarmingly large when compared to "fair return" rates generally arrived at for other types of utilities. However, the acid test of any utility's net earnings are, in our opinion, their adequacy to meet its reasonable financial requirements.

[2] After consideration of the composition of applicant's rate base and its general financial condition, we are of the opinion that operating ratios approximating 88 per cent before income taxes and 94 per cent after income taxes are reasonable for it, and we have

[1] Public Utilities Commission of the state of California; Public Service Commission of Connecticut; Maine Public Utilities Commission; Massachusetts Department of Public Utilities; Utah Public Service Commission.

used these ratios as preliminary tests for determining the reasonableness of the various rate proposals before us. Net earnings which result from these "reasonable" ratios have been finally tested against financial requirements to arrive at a rate of return considered fair for applicant under present circumstances.

Zone Fares

Under the terms of its original charter, applicant was limited to "one fare in the closely built up portion of the District of Honolulu."[1] This restriction was slightly amended in 1947[2] and was removed altogether in 1949.[3]

Most transit companies were organized to operate relatively few, short-haul lines. Because the cost of providing service over such limited systems was relatively small and because of the difficulty of measuring the average length of ride and resultant cost of service to particular patrons, rates were set on a flat basis for the entire system. In the early days of transit companies, most flat rate fares so determined were nominal and proved to be no deterrent to the patronage of short-haul riders.

As cities grew and demands for mass transportation services increased, transit companies expanded their service correspondingly. Such expansions extended existing lines and added new ones to serve new urban and suburban areas. As a result, simple short-line transit systems evolved into complex long-line systems over the years, and the maximum ride over such systems lengthened correspondingly.

During the period of such growth, it became necessary from time to time, because of increased unit operating costs or because of the extended service available to the rider, for transit companies to increase their revenues through increases in fares. They had two alternative methods of accomplishing this, either to increase the flat rate fare for their entire systems, or establish fare zones in order to relate the fare charged to the length of the ride offered and to the corresponding cost of the service. For many years they chose the former as the avenue of least resistance and because of the simplicity and ease of collecting and handling a single basic fare. For this reason the riding public paid and became accustomed to the single fare for many years and it became "sacred" to regulatory bodies and transit companies. As a result most transit companies, until recently, have been in a class by themselves as the only public utility which did not attempt to relate their charges to the cost of their services as allocated between their various classes of customers.

The effect of such single fares does not, in our opinion, become serious until such fares increase to the point where they begin to drive away the short-haul riders. These short-haul riders are, or should, be the backbone of any transit company's business; they put the profit in the company's "pocket." However, increases in a single fare may cause them to walk or find

[1] Section 13, Act 136, Session Laws of Hawaii 1921.
[2] Section 3, Act 133, Session Laws of Hawaii 1947.
[3] Section 1, Act 149, Session Laws of Hawaii 1949.

other means of transportation. When this point is reached there results a downward spiral in net earnings which is disastrous to both the company and its patrons, for if the trend should continue for any length of time, they would eventually suffer from the poor service which a financially unhealthy company can offer.

There is no general agreement as to the level of fare which will cause a serious loss of short-haul riders. However, many experienced transportation men believe it to be in the neighborhood of 10 cents. This is borne out by the fact that flat fare increases above 10 cents have, in many instances, been observed to cause a sharp decrease in passenger traffic.

[3] In order to increase over-all revenues and retain profitable short-haul traffic, regulatory bodies and transit companies have, in recent years, turned to the establishment of zone fares which, although they admittedly do not meter individual rides and charge accordingly, do make approximate distinctions between short or medium, on the one hand, and long-haul riders on the other, and do establish some equity between the relative fares which they pay.

Applicant points to the maximum length of ride on its system (22.65 miles), the present level of its single fare (10 cents), the complexity of its system, and the losses being incurred on the majority if its lines and contends that it is in its best interest and that of the riding public, and equitable for all, for it to establish a zone fare system at this time. After careful consideration of the record we are in agreement.

As to the location of the zone boundaries proposed by applicant, the record is sufficient to support their reasonableness. We will, therefore, hereinafter authorize the establishment of such zone boundaries. The rates of fares to be charged in conjunction with such zone fare system will be discussed hereunder in connection with our review of the financial operating results expected to be produced thereby.

Although the added revenue which will be produced by zoning will be relatively small, we believe we should not avoid the establishment of such zones for that reason and make up the difference in required revenue by means of a slightly higher basic fare. We believe that it is our responsibility to look to the future when, in our opinion, conditions will require more extensive application of the principle of zoning. We believe that the time has come for zoning in Honolulu, that it must be built up by gradual steps, and that it must start on long lines, in outlying sections, with minimum fare increments and long overlaps.

We believe that this proposal does not discriminate unduly against those patrons who will be required to pay an additional zone fare. In general, they will be paying more because they are getting a longer ride. The long-haul riders, for the most part, are those traveling between outlying residential sections and the center of the business district. Property values and taxes are comparatively lower in such outlying and suburban areas. The additional fare will merely tend to equalize the cost of living between such areas and those closer to the business district. While we realize that it will mean an unexpected burden to those who have already established their homes in the

outer zones, we believe that the institution of zoning can no longer be deferred without prejudice to the long-term welfare of the company and its patrons as a whole.

Evidence Presented

Turning now to the evidence, we will review the cases presented by the company and the staff in some detail. Both applicant and the staff presented exhibits and testimony [1] as to the probable utility earnings, rate of return, and operating ratio, under both present and proposed rates, for the test year (June 1, 1951—May 31, 1952). In addition, the staff presented estimates as to probable earnings, rate of return, and operating ratio during the test year under five alternate fare plans as set forth on page 7 of Commission's Exhibit Q.

Historical Showing

Evidence presented by the staff showed that applicant incurred a net operating loss of $67,482 in 1948 and realized net income of $341,215 and $235,675 in 1949 and 1950, respectively.

The record shows that the decline in net operating income in 1950, as compared to 1949, was due to a continuing decline in passenger traffic and resultant gross revenue, as well as increased unit operating costs. This unfavorable trend is expected to continue in the future, although there is some indication that the downward trend in passenger traffic may level off and become stabilized not far below present levels.

Forecast Showing

Company and staff estimates of the financial results of applicant's operations under present rates during the test year ending May 31, 1952, are summarized in the following comparative tabulation:

	Test Year June 1, 1951–May 31, 1952 Under Present Rates	
	Company	Staff
Revenues	$4,022,500	$4,023,552
Expenses	3,852,697	3,824,202
Net before Income Taxes	$169,803	$199,350
Income Taxes	78,021	92,696
Net for Return	$91,782	$106,654
Rate Base	$4,422,176	$2,858,610
Rate of Return	2.07%	3.73%
Operating Ratio before Income Taxes	95.77%	95.04%
Operating Ratio after Income Taxes	98.95%	97.35%

As the figures above show, differences in company and staff estimates of revenue during the test year under present rates were negligible. There is a small difference in operating expense estimates, the reasons for which will be discussed below in connection with the comparison of staff and company estimates of operating results under proposed rates. The material difference between staff and company rate base estimates will also be later discussed in the section outlining the development of such estimates. It is apparent from either set of figures that the company's present rates of fare will not produce sufficient revenue to meet its requirements.

[1] List of witnesses: For applicant: J. W. McClaren, Jr., J. E. Ong, E. deHarne, G. H. Kellerman, and J. Glessner; for the Commission: J. H. Kangeter, W. H. Wright, C. S. Fraga, and H. G. Butler.

Company and staff estimates of operating results during the test year under proposed rates are compared, as follows:

	Test Year (June 1, 1951–May 31, 1952) Under Proposed Rates		
	Staff	Company	Difference
Scheduled Passenger Revenues	$4,405,295	$4,348,728.00	$56,567.00
Charter	33,000	30,000.00	3,000.00
Miscellaneous	55,820	50,000.00	5,820.00
Total Operating Revenues	$4,494,115	$4,428,728.00	$65,387.00
Operating Expenses	$3,163,745	$3,227,173.70	*$63,428.70*
Depreciation	299,430	304,867.00	*5,437.00*
Amortization	24,891	24,891.00	....
Taxes Other than Income	296,141	270,500.00	25,641.00
Total Operating Expenses	$3,784,207	$3,827,431.70	*$43,224.70*
Net before Income Taxes	$709,908	$601,296.30	$108,611.70
Income Taxes	408,196	322,296.00	85,900.00
Net for Return	$301,712	$279,000.00	$22,712.00
Rate Base	$2,858,610	$4,422,176.19	*$1,563,566.19*
Rate of Return	10.55%	6.31%	
Operating Ratio before Income Taxes	84.20%	86.42%	
Operating Ratio after Income Taxes	93.29%	93.70%	

The principal difference between the two sets of estimates is in the amount of the rate base. The staff's estimate of revenue is approximately 1.5 per cent greater than the company's, the expenses before depreciation, amortization and taxes other than income less by 2 per cent, expenses including depreciation, amortization, and operating taxes less by 1.1 per cent and the rate base is approximately 35 per cent smaller. These differences, except in the rate base, are not material; however, they will be discussed briefly with primary emphasis on the rate base disagreement.

Revenues

[4] Company and staff estimates of revenues under proposed rates were developed from a common base. Both used past traffic curves as a basis for estimating the number of full fare passengers that the company would carry during the test year under present rates and agreed on a figure of 36,600,000. Company and staff estimates of interzone riders were based on figures developed in a traffic study conducted by the staff. While there were minor differences in company and staff methods of translating the basic figures into a test year forecast, the results did not differ materially. Both applicant and the staff based their estimates of the number of school fare passengers to be carried during the test year under present rates on a survey conducted in all classrooms of all schools during the month of November, 1950, in which the staff of the Commission participated. Company and staff estimates were in practical accord, the company using a figure of 5,450,000 and the staff using a figure of 5,449,300.

The differences in the estimates of passenger revenue under proposed fares resulted from disagreements as to

the diminution in passengers which would be caused by the proposed increased fares and the percentage of riders who would take advantage of the cheaper rate of basic fare by purchasing tickets.

The Commission's consultant, Mr. Harry G. Butler, testified that the diminution factor used in the staff's computations (2½ per cent for each 10 per cent increase in basic fare) was based on a study of this company's experience after past fare increases and his best judgment gained from long experience with various mainland bus properties. He testified further that this factor has been used exclusively by the California Public Utilities Commission in transportation rate proceedings for a number of years, after having been analyzed by many competent engineers and transportation experts. He added that this factor was so widely accepted that it was adopted by many bus operators, including the Key System in Oakland and Pacific Greyhound Lines, which is the largest bus operator in the United States.

The company presented testimony and its Exhibits 7 and 8 in support of its contention that each 10 per cent increase in fare would result in a 3 per cent loss in traffic. We find no fault with these exhibits as a statistical presentation. However, we are of the opinion that they are of but little value in the present instance, for we feel that the traffic loss figures developed therein are basically defective. They depend on the assumption that the calculated net change in traffic trend for each of the companies listed is due solely to the increased fare; they fail to take into account many other variables which can and usually do affect such trends.

Even if we accepted the 3.3 per cent diminution factor developed in applicant's Exhibits 7 and 8 as representing the general experience of the companies listed therein, we would still hesitate to apply this factor in the present instance because of the extreme deviation between the high and low factors developed. We will, therefore, rely on the judgment of our staff and the precedent set by the California Public Utilities Commission, which in our opinion is one of the foremost regulatory bodies in the United States, and will adopt the diminution factor of 2½ per cent for the purposes of this decision.

The second factor contributing to the difference in company and staff estimates of full fare passenger revenue under proposed rates is the percentage of utilization of the proposed ticket fare. The staff used a figure of 80 per cent for both intra and interzone riders, while the company used a factor of 82 per cent for intrazone riders and 95 per cent for interzone riders. Company and staff estimates of average intra and interzone full fares resulting from the use of these factors are compared in the following tabulation:

	Estimated Average Fare	
	Company	Staff
Intrazone passengers	11.36¢	11.38¢
Interzone passengers	14.46	14.38

The ticket utilization factors are matters of judgment and can only be determined conclusively after experience is gained. The Commission desires that the company make necessary studies to determine the extent of utilization of the ticket fare. Since differences between company and staff are

not substantial we will adopt the staff's figures for the purposes of this decision.

Because of our approval of the staff's development of diminution and ticket utilization factors, we will adopt its estimate of full fare revenues for the purposes of this decision.

Company and staff estimates of school fare revenues differed very little and we will adopt the staff's figure for the purposes of this decision.

The company and staff differed in their estimates of chartered and miscellaneous revenue by a total amount of $8,820, the staff's estimate being higher by that amount. The staff based its forecast on such revenues received during March and April, 1951 annualized, while the company based its lower estimate on the experience of previous years. We see no reason why chartered and miscellaneous revenues should not continue at present levels and we will, therefore, adopt the staff's estimates in the amounts of $33,000 and $55,820, respectively, for the purposes of this decision.

Operating Expenses

[**5**] There is a total difference of $63,429 between company and staff estimates of operating expenses, exclusive of depreciation, amortization, and operating taxes. A minor part of this difference is accounted for by the differences in estimates of vehicle mileage to be operated during the test year. Both company and staff based their estimates of mileage to be operated on their respective estimates of passengers to be carried. The resultant difference in mileage estimates was reflected in the operating expense elements which vary with mileage. The major portion of the difference, amounting to $60,128, lies in two items, wages and pensions. The difference in the wage item amounting to $4,963 was due to the fact that the staff did not include recent salary increases granted to nonbargaining unit employees. This amount will be allowed for the purposes of this decision.

The difference in the item of pensions, amounting to $55,165, is of sufficient importance to merit some discussion. The staff included an amount of $18,500 for pension costs, which amount represents the estimated payment for future service annuities of nonbargaining unit employees during the test year, but excluded the estimated costs of past service annuities for such employees and also the total estimated pension cost for bargaining unit employees, both of which were included by the company in the amounts of $13,546 and $41,589, respectively.

We will exclude the pension costs of $41,589 for bargaining unit employees, as there is nothing in the record to show that such costs will be incurred during the test year other than the expressed desire of the company to place a pension plan for such employees in effect. Whether these employees will agree to such a plan in the near future is very doubtful. We will not anticipate the event.

Cost of future service annuities for nonbargaining unit employees will be allowed in the amount of $18,500, as included by the company and the staff. The record shows that applicant has contracted with the John Hancock Life Insurance Company to place an insured pension plan in effect for such employees. As regards the cost of past service annuities for these employees,

amounting to $13,546, we are undecided as to whether or not this cost should be borne by the company's present and future ratepayers. This question, which is relatively new to regulatory bodies and which, as the record shows, has been accorded different treatment by a number of them, is believed to merit further detailed study and consideration. We will, therefore, withhold a finding on this important matter until a later date and will exclude the amount in question from the allowance for operating expenses which we will adopt for the purposes of this decision. This treatment is not believed to be detrimental to the company since it may record any expenditure actually incurred therefor as a direct charge to operating expenses, if it so desires, and the amount so entered may be amortized "below the line" if it should be disallowed.

For the reasons stated above, we will adopt the staff's estimate of operating expenses, with adjustments to include the additional $4,963 for wages as noted above, additional gasoline taxes estimated to amount to $6,000, and amortization of regulatory expenses in connection with this proceeding amounting to $12,120, which the company will be allowed to amortize over a period of two years by annual charges of $6,060. The adopted allowance for expenses, after adjustments as noted above, totals $3,180,768.

Depreciation and Amortization

[6] Company and staff estimates of depreciation and amortization expenses chargeable to operations were in agreement, with one exception. The staff's estimate of $299,340 for depreciation expenses excluded an item of $5,347, which represented estimated depreciation on fifteen trolley coaches offered for sale by the company. Since applicant has offered these vehicles for sale we can only assume that it has decided that they are no longer used or useful in the public service. We do not believe that the ratepayer should bear the cost of depreciation on inoperative property and will, therefore, adopt the staff's estimate. The exclusion of depreciation charges on the fifteen trolley coaches will work no hardship on the company, since it will be allowed to amortize any loss incurred in their sale, if and when any such loss is actually incurred. Amortization expense in the amount of $24,891, as agreed upon between the company and staff, will also be allowed.

Taxes

There are rather large differences between company and staff estimates of operating and income taxes. However, such differences will not be discussed inasmuch as they are the result of differences in revenue and expense estimates rather than disagreement as to the proper method of computing the estimates. The figures which will be used below in the summary of adopted estimates of operating results under proposed rates are based on present tax rates as applied to revenue and expense estimates adjusted as set forth hereinabove.

Rate Base

[7] Company and staff estimates of the average rate base, differing by $1,563,566, reflect fundamental differences of opinion. These estimates are set out here in summary form for purposes of comparison:

	Est. Avg. Depreciated Rate Base Test Year (June 1, 1951–May 31, 1952) Company	Staff
Land	$1,007,577[1]	$361,794[2]
Plant and Equipment in Service	2,890,193[3]	1,965,455[4]
Materials and Supplies	318,090	325,045
Unamortized Rail Removal Cost	176,316	176,316
Change Funds	30,000	30,000
Average Depreciated Rate Base	$4,422,176	$2,858,610

[1] Appraised value except Fernhurst property at original cost.
[2] Original cost.
[3] Original cost less accrued depreciation per books, except trolleys and busses, included at original cost 50% depreciated.
[4] Original cost less accrued depreciation per books.

The large difference in the rate base estimates lies in two items, namely, land and equipment in service. The company included land at appraised value, except for the Fernhurst property, which was included at original cost.

The staff included land at original cost. It excluded a portion of the Fernhurst property which is not presently used and useful in utility service. The staff's allowance of 38.9 per cent of the cost of that property was based on the area now being used by the transit company, which is 38.9 per cent of the total Fernhurst area.

The company and staff were agreed on the depreciated original cost of the plant and equipment in service. However, in its computation of the average rate base, the company included trolleys and busses at original cost 50 per cent depreciated rather than at the original cost less accrued depreciation per books, as was done by the staff.

We are of the opinion that the company's development of the estimated average rate base, as regards the land and equipment items, is unrealistic and deserving of very little consideration. Applicant's contention that land should be included at appraised value was denied in the 1946 proceedings in Docket No. 903 by Commission's Decision No. 82, 65 PUR NS 48, and this disposition was reaffirmed in the 1949 proceedings in Docket No. 986 by Commission's Decision No. 110. We shall again include land in the rate base at original cost only. As regards the Fernhurst property we are of the opinion that the staff's treatment was proper, with one exception. As the record shows, the balance of the Fernhurst property will be placed in service by approximately March 1, 1952, and the balance of the original cost ($244,650) will, therefore, be allowed for the remainder of the test year. This will increase the staff's allowance for land by $50,969 as reflected in the average rate base, making the adopted figure for land in service $412,763.

The company's inclusion of rolling stock in its rate base at 50 per cent depreciated condition is, to say the least, without precedent, reason, or justification, and will be dismissed without further comment.

[8] We will state here that the rate base hereinafter adopted will not be the sole means of testing the reasonableness of the rates proposed by the company, or those which will hereinafter be authorized. Rather, we will rely on a threefold test of such rates; namely, the operating ratio resulting therefrom, the adequacy of the net income produced to meet the company's reasonable financial requirements, and the relationship of such net income to

the rate base expressed in per cent, with the first two tests being given as much or more weight than the third, for the reasons hereinabove stated.

We will, therefore, adopt the following rate base estimate for the purposes of this decision:

	Adopted Average Depreciated Rate Base Test Year June 1, 1951–May 31, 1952
Land	$412,763
Plant and Equipment in Service	1,965,455
Materials and Supplies	325,045
Unamortized Rail Removal Cost	176,316
Change Funds	30,000
Average Depreciated Rate Base	$2,909,579

Alternative Fare Plans

In addition to its estimates of operating results during the test year under proposed rates, the staff presented estimates of operating results under five alternative fare plans, as follows: [See table at bottom of page.]

The staff's estimate of operating results under alternative fare plan "E," which it recommended for adoption, is summarized hereunder:

	Staff Estimate Alternative Fare Plan "E"
Revenues	$4,331,960
Expenses	3,800,259
Net before Income Taxes	$531,701
Income Taxes	270,055
Net Income	$261,646

We will adopt the staff's estimate with adjustments to operating expenses for additional wages, gasoline taxes, and regulatory expenses in the total amount of $17,023, which we have hereinabove allowed.

Adopted Estimates of Operating Results

In summary review of the foregoing, it is our conclusion that operating results under rates proposed by applicant and alternative fare plan "E" recommended by the staff, would be as follows:

	Adopted Estimates Test Year June 1, 1951–May 31, 1952	
	Proposed Rates	Fare Plan "E"
Revenues	$4,494,115	$4,331,960
Expenses	3,801,230	3,817,282
Net before Income Taxes	$692,885	$514,678
Income Taxes	395,000	256,859
Net Income	$297,885	$257,819
Rate Base	$2,909,579	$2,909,579
Rate of Return	10.2%	8.86%
Operating Ratio before Income Taxes	84.58%	88.12%
Operating Ratio after Income Taxes	93.37%	94.05%

Financial Requirements

[9] In our opinion the net income produced by alternative fare plan "E" ($257,819) would be adequate to meet applicant's financial requirements. Such would cover fixed interest

	Adults						School Fares		
	Intrazone			Zones 2 & 3					
	Cash	Tickets	Cost Per Ride Tickets	Cash	Tickets	Cost Per Ride Tickets	Cash	Tickets	Cost Per Ride Tickets
"A"	13¢	2 for 21¢	10.5¢	5¢	None	....	5¢	None	....
"B"	13¢	3 for 30¢	10.0¢	5¢	None	....	5¢	None	....
"C"	11¢	None	....	.....	No Zones	......	6¢	10 for 55¢	5.5¢
"D"	11¢	None	....	.....	No Zones	......	5¢	None	....
"E"	13¢	2 for 21¢	10.5¢	5¢	5 for 15¢	3¢	5¢	None	....

charges and preferred stock dividends totaling $27,030 and permit payment of common stock dividends of 6 per cent or 8 per cent, with carry-overs to earned surplus of $121,349 or $84,-869, respectively.

Rates of Fare

After careful study of applicant's rate proposals, we are of the opinion that they will produce net income in excess of its requirements. We also believe that the rates themselves are not suitable in form because they would require the adult rider to purchase 5 fares to obtain the ticket discount, which we believe is unduly burdensome, and would require the occasional school fare rider who purchased only one fare to pay too much of a premium, which feature we believe to be particularly objectionable.

On the other hand, we are of the opinion that the rates recommended by the staff will produce net earnings adequate to meet applicant's needs. We favor the form of such rates which provide for ticket sales at the rate of 2 for 21 cents, or multiples thereof, which makes it possible for even the occasional rider, making a single round trip by bus, to take advantage of the ticket discount. In addition the present 5-cent cash school fare is retained. Although it is true that such school fare does not cover the cost of the service, neither does that proposed by the company, and it will produce approximately the same revenue as the company's proposed school fare, without the attendant difficulties of ticket handling and accounting, and without penalizing the occasional school fare rider.

Conclusions

[**10**] The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that applicant's present rates of fare will not produce adequate revenues to meet its needs and as such are unjust and unreasonable and should be abolished, but that the rates of fare proposed by applicant are excessive and should be denied. We are further of the opinion and find that the rates of fare recommended by the staff will yield net income in the amount of $257,819, a rate of return of 8.86 per cent on the adopted rate base and an operating ratio of 94.05 per cent after taxes during the test year, that such a return is fair and reasonable under the circumstances and adequate to maintain applicant in sound financial condition, and that, therefore, the rates of fare recommended by the staff should be authorized.

The company will be authorized to establish, as of June 16, 1951, fare zones numbered 1, 2, and 3 as set forth on the map attached hereto as Exhibit 1 and by reference made a part hereof, and to place in effect, as of June 16, 1951, rates of fare as follows: [Exhibit 1 omitted.]

(1) *Full-Fare Passengers*

Thirteen cents cash fare or 2 tickets for 21 cents, with an additional fare of 5 cents cash, or a ticket sold at the rate of 5 for 15 cents, for full-fare passengers crossing the boundaries between zones 1 and 2, or between zones 1 and 3, with full transfer privileges on all connecting service lines within any zone for which the fare has been paid, subject to the company's rules relating to such transfers.

(2) *School Fares*

Five cents cash fare, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers. No zone fares.

(3) *Express Service to and from Pearl Harbor*

Twenty cents cash, with no transfer privileges.

(4) *Special Services*

Such other fares for special services as the Commission may from time to time approve.

An order in conformity with this decision will issue.

COMMISSIONERS O'DOWDA and LYCURGUS dissenting: The action of the Commission in this matter marks a significant departure from the historical pattern of applicant's rates. For the first time, adult passengers will be required to pay a fare of more than ten cents to ride the company's busses and trolleys. Furthermore, they will no longer be permitted to ride as far as they desire for the fare. We are, of course, aware of the pressure of rising costs, their effect on applicant's business, and the necessity for financial relief. We are also cognizant of the trends toward fares in excess of 10 cents and zoning. We have no preconceived objection to either in principle —the 10-cent fare may be going the way of the "5-cent cigar"—nor is there anything "sacred" about the single fare. But under the circumstances of the present case we feel strongly that the action of the Commission has not been in the best public interest. Because of our convictions in the matter, we feel compelled to set forth our views at some length.

Our immediate concern is for those people who have established their homes in residential districts outside Zone 1. True, they enjoy a way of life that others living in more conjested areas do not and, no doubt, they are willing to pay for it. However, it seems to us that the increases authorized by the Commission fall unduly heavily upon them. To some families the new rates will mean a hardship. Moreover, in the not too distant future, we may be faced with a request for an extension of zoning to other areas. In this very matter applicant originally sought the establishment of twelve zones, covering practically every one of the outlying residential districts. The reasons for zoning would seem to apply equally to such other areas. We find it difficult to draw the line, except at the extreme limits of applicant's present system. When new zones are established, the families living there will also feel the burden of the new fare. So it is not an insignificant part of the riding public for whom we are concerned.

We are also concerned with the implications of zoning. Heretofore, the Commission has authorized and, in a few instances perhaps, required extensions of service to new areas even though the prospective patronage was far below the cost of the service. The Commission has felt free to do so because it believes that the company's position as the sole mass transportation carrier in the city carries with it the obligation to render service on unprofitable lines as well as profitable lines so long as the over-all operations give the company a fair rate of return. That policy has, we believe, accelerated the development of new residential

areas, which in turn has increased the patronage on such lines. We believe that that is the way to make outlying routes pay their way—by encouraging patronage, not by discouraging it with an extra fare.

We are not saying that anyone has a right to the continuance of the single fare. But we sincerely feel that the new rate structure is unfair to many of the present patrons of the company. We also believe that the additional revenues which will be realized from the zone fare do not justify the hardship which will be imposed on those people. We would feel otherwise if the Commission had no other reasonable alternative; but that is not the case. In one of the alternative fare plans, plan "D," we have been presented by the staff with a fare structure which we believe will not only adequately take care of the financial requirements of the company, but also be in the best interests of the riding public at large.

We would, therefore, authorize the company to place in effect, as of June 16, 1951, rates of fare as follows:

(1) *Full-Fare Passengers*

Eleven cents cash, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers.

(2) *School Fares*

Five cents cash, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers.

(3) *Express Service to and from Pearl Harbor*

Twenty cents cash, with no transfer privileges.

(4) *Special Services*

Such other fares for special services as the Commission may from time to time approve.

Such fares should give the following results, which we believe to be fair and reasonable under the circumstances and adequate to maintain applicant in sound financial condition:

	Estimated Operating Results Alternative Fare Plan "D" Test Year June 1, 1951–May 31, 1952
Revenues	$4,290,840
Expenses	3,818,558
Net before Income Taxes	$472,282
Income Taxes	228,255
Net Income	$244,027
Rate Base	$2,920,588
Rate of Return	8.36%
Operating Ratio before Income Taxes	88.99%
Operating Ratio after Income Taxes	94.31%

Order

Pursuant to Commission's Decision No. 125 entered in the above-entitled matter, it is hereby

Ordered: That Honolulu Rapid Transit Company, Limited, be and it is hereby authorized and directed to establish, as of June 16, 1951, fare zones numbered 1, 2, and 3 as set forth on the map attached hereto as Exhibit 1 and by reference made a part hereof, and to place in effect, as of June 16, 1951, rates of fare as follows: [Exhibit 1 omitted.]

(1) *Full-Fare Passengers*

Thirteen cents cash fare or 2 tickets for 21 cents, with an additional fare of 5 cents cash, or a ticket sold at the rate of 5 for 15 cents, for full-fare passengers crossing the boundaries between zones 1 and 2, or between zones 1 and 3, with full transfer privileges on all

connecting service lines within any zone for which the fare has been paid, subject to the company's rules relating to such transfers.

(2) *School Fares*

Five cents cash fare, with full transfer privileges on all connecting service lines, subject to the company's rules relating to such transfers. No zone fares.

(3) *Express Service to and from Pearl Harbor*

Twenty cents cash, with no transfer privileges.

(4) *Special Services*

Such other fares for special services as the Commission may from time to time approve.

ARIZONA CORPORATION COMMISSION

Re Arizona Edison Company, Incorporated

Docket No. 9854-E-1014, Decision No. 21260
July 18, 1951

APPLICATION *for authority to increase electric, gas, and water rates; application granted.*

Valuation, § 27 — Measures of value — Economic value — Book value.

A rate base for a power company was arrived at by considering both the so-called economic value (substantially reproduction cost new less depreciation, except for an additional deduction for functional depreciation) and the book value of the property.

Valuation, § 27 — Measures of value — Precedent — Future determination.

Statement that although the fair value of a power company's property was determined by a consideration of both the economic value and book value of such properties, such a decision should not be a precedent for any state pattern or formula for the future, because all methods of determining rate bases would end in the same result if the country were in a sustained period of level prices; and a broad sweeping conclusion as to which formulae, if any, would be appropriate, should not be made under such conditions, p. 149.

By the COMMISSION: At a session of the Arizona Corporation Commission held at the hearing room of said Commission's office in Phoenix, Arizona, beginning at 10 o'clock A. M. on Thursday, May 17, 1951, and concluding on Saturday, June 2, 1951.

These proceedings are upon an orig-

inal petition of Arizona Edison Company, Inc., filed with this Commission on March 15, 1951, asking for authority to amend, revise, adjust, and increase certain of its electric, gas, and water rates in order that such proposed rates would produce approximately $317,883 of additional gross revenue or $147,992 of gross income (net earnings) based upon sales for the 12-month period ended December 31, 1950. The company explained that its asking was for rates which would produce slightly more gross revenue than this, namely $351,300, but that amount was reduced to the said $317,883 when certain rate decreases made just prior to this hearing were taken into account.

The Commission fixed 10 o'clock A.M., Thursday, May 17, 1951, as the time for the beginning of the hearing and gave due notice thereof to all interested parties.

A public hearing was held before the Commission, all Commissioners being present, on May 17, 18, 21, and 22, 1951. Appearances were entered by the company, the attorney general's office and the Commission staff, and by Miami, Arizona, represented by its mayor, Arthur Turner; Casa Grande, by its Counsel, Gene Mangum; Yuma, by City Councilman, J. W. Bailey; Winkelman, by its Mayor, Charles Quarelli; and Coolidge, by its Counsel, Charles W. Stokes.

On May 22, 1951, the hearing was adjourned with permission given to both the company and the attorney general and the Commission staff to prepare closing exhibits. Shortly thereafter, the company submitted one and the attorney general and Commission staff submittted nine such exhibits for which the hearing was reopened and opportunity for cross-examination was again provided.

On June 2, 1951, the Commission met in executive session, all Commissioners being present, and issued the following minute order:

"The Commission having carefully reviewed all the evidence in the matter of the petition of Arizona Edison Company, Inc., for authority to modify certain of its electric, gas, and water rates, Docket No. 9854–E–1014, upon motion duly made, seconded and unanimously carried by the vote of all the Commissioners, it was ordered that the rate schedules filed by applicant, Arizona Edison Company, Inc., on March 15, 1951, as corrected be and they are hereby approved effective as of this date.

"It is the further order of this Commission that the attorney general, together with the staff engineer and staff auditor, prepare a formal written opinion and order in conformity with the decision of this minute order."

This opinion and order is written in compliance with the above set forth minute order.

The company introduced testimony and exhibits showing that it had had no general rate increase since its formation in the state of Arizona (1935), but that instead has had a score of individual rate decreases and some blanket rate reductions. The total effect of these reductions was illustrated by the company by its showing that it now sells the same amount of electricity for 40 cents that it sold in the year 1935 for one dollar; that during the same years, its average price of gas per 100 cubic feet has been reduced by 51 per cent and that the average sale price

per thousand gallons of water has been reduced by 44.5 per cent. The company further showed that most of these reductions were made upon its own motion.

The company submitted evidence that during this same period prices generally were rising by some 78.4 per cent (Bureau of Labor Statistics Cost of Living Index) and that many of its major items of material purchases rose by almost as large a percentage. The company also submitted evidence of a 55 per cent increase in its average labor costs, 125 per cent increase in taxes (other than income), and a 24 per cent increases in income taxes. Finally, the company indicated it had experienced a substantial increase in users in all three of its utilities but claimed that its earnings had not increased in proportion to the increase of investment in plant property required to serve these added users.

On the subject of rate bases, the company submitted evidence (through a Stone & Webster Engineering Corporation witness) of the result of a detailed inventory and pricing study with deductions for observed deterioration and functional depreciation. The results of this study (according to the witness) represented the true "economic value" of the property. Except for the added deduction of functional depreciation (being described as obsolescence) in addition to the usual deduction for observed depreciation, these resulting figures were what are generally known as "reproduction new less depreciation" studies.

The company then submitted its book cost figures less depreciation, again broken down for the electric plant, the gas plant, and the nine separate water operations, together with certain pro forma exhibits to indicate what plant would be added by the end of the year 1951.

The whole of the testimony and exhibits of the state were based upon cost as reflected by the books of the company. The state introduced eleven exhibits related to rate base developed from the company's books and the company's pro-formed book exhibits but differing therefrom in certain substantial respects: The state adopted a more conservative figure for working capital than had been adopted by the company and completely excluded any showing of going concern value. The state's exhibits also excluded any value for water rights, organization expense, or intangibles.

Taking into consideration the testimony and exhibits of the company and the Commission staff, going to an analysis of both the so-called "economic value" and book value of the various company properties, the immediate future expansion needs of the company, the trend of costs of operation, and other factors here relevant, we believe and hereby declare that the fair value of the company properties for rate-making purposes is as follows:

Electric Dept.	$9,477,500.00
Gas Dept.	2,445,800.00
Water Dept.	
Casa Grande	416,900.00
Coolidge	416,900.00
Florence	129,500.00
Yuma and Yuma Valley	1,508,300.00
Ajo Heights	71,400.00
Bisbee	825,500.00
Miami	290,500.00
Superior	387,300.00
Winkelman	31,100.00

The Commission has been interested in the constant study and investigation by various state and Federal Commis-

sions as to appropriate formulae for determining rate bases. The results of these studies and decisions have ranged all the way from acquisition or original cost less depreciation as used by the Federal Power Commission to reproduction new less depreciation as used by the state of Ohio. Were we in a sustained period of level prices, these studies and all of the various methods of determining rate bases resulting therefrom would be unnecessary for there then would be no difference in result between cost of acquisition, book value, reproduction value new, or any of the many variations in between these. However, this Commission is unready at this time to come to a broad sweeping conclusion as to which of these formulae, if any, would be appropriate and sound for all cases in all situations and at all times and, therefore, in setting these values, the Commission intends and here declares that this decision be no precedent for any state pattern or formula for the future. In this decision, we are taking into consideration the history of the applicant company, its particular problems and present conditions.

To support its asking and as a part of its rate of return testimony, the company submitted evidence dealing with the so-called "cost of money theory." This evidence tended to show that since the year 1949, the cost of money to the company exceeded the percentage earned on capitalization. It was the conclusion of the company's cost of money witness that this was an extremely unhealthy situation, financially speaking, and was below the level where confiscation begins. For this legal conclusion, the witness relied upon the recent decision of the Massachusetts supreme court: New England Teleph & Teleg. Co. v. Department of Public Utilities (1951) — Mass —, 88 PUR NS 73, 97 NE2d 509.

In further support of its asking, the company submitted actual and proformed income and expense analyses. Similar exhibits were submitted by the state differing from the company's exhibits in the following particulars:

1. The state eliminated some $38,500 a year expense denying the validity of the company's assumption that the now proposed rate increase of the El Paso Natural Gas Company (currently pending before the Federal Power Commission) would be granted in toto.

2. The state considered that the expense of the rate hearing to the company, together with the cost of the property inventory record set up should be amortized over five years instead of the 3-year amortization period reflected in the company's exhibits.

3. The state's exhibits reflected an amortization of cycle conversion work over a 10-year period instead of the 5-year period reflected by the company's exhibits.

4. As the state had, in its exhibits dealing with the value of the property, eliminated organization expense, water rights, going concern value, and certain intangibles, it likewise here eliminated the amortization expense of these items.

5. The company's exhibits included, as an added expense, the increase cost of power that will result when its Parker Dam Power Contract is canceled and is replaced by more expensive power. The state adopted the view that this increase is "in futuro" and

should not be reflected at this time.

There were certain other differences in the company and state figures, however, of a minor nature.

Even by adopting the state's exhibits in toto, when the increased expenses are spread appropriately between the electric and gas departments and the various separate divisions of the company's water department and compared with the fair values as previously set by this opinion, the rates of return to be found, assuming the company's proposed rate schedules are approved in toto, are well under the upper limits of a "fair return on fair value" and still seem to give ample funds for the present and the immediate future, both to support the company's operating costs, its fixed capital requirements and leave enough thereafter for dividends and surplus in a conservative amount such as will allow the company to both maintain a proper standard of service and be able to increase and expand its service with the increasing and expanding needs of its customers, and that the proposed rates are fair and reasonable to the consumer.

Order

It is hereby *ordered* that the rate bases for the company's electric and gas divisions and its various water divisions as hereinabove found be and they are hereby established.

It is *further ordered* that the rate schedules filed by the company and approved by this Commission on the 2nd day of June, 1951, effective as of that date, be and they are hereby reaffirmed and approved and the said minute order of June 2, 1951, is hereby incorporated herein and made a part hereof.

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Re Eastern Massachusetts Street Railway Company

D. P. U. 9573

July 27, 1951

INVESTIGATION *on Commission motion of proposed curtailment of transit service; modified and approved.*

Service, § 242 — Curtailment of operation — Burden to justify action — Transit company.

1. A transit company seeking authority to curtail certain services has the burden to justify its action, and unless upon a complaint against such action it appears that public interest is not adversely affected, such a complaint must be upheld, p. 152.

Service, § 241 — Curtailment of service — Preference to rate increases — Transit company.

2. A transit company should cut its service in order to conserve its resources, rather than make repeated applications for increases in fare when its financial position demands an increased margin between revenues and expenses; but where patronage is substantial and operating revenues are still insufficient to produce an adequate net income, the only possible conclusion to be drawn is that the patrons are not paying enough for the service, and curtailment of existing service will be denied, p. 152.

APPEARANCES: J. Joseph Maloney, for Eastern Massachusetts Street Railway Company; James T. Kane, City Solicitor, for city of Lawrence; James Campopiano, pro se.

By the DEPARTMENT: The Eastern Massachusetts Street Railway Company gave due public notice of its intention to place in effect a new schedule of motor bus operations in its Lawrence Division, stated to be effective June 10, 1951. Upon receipt of a number of complaints regarding the proposed curtailments included in these schedules, the Department voted upon its own motion to investigate the proposed curtailments and ordered the existing schedules of the railway in the city of Lawrence to be kept in effect pending this determination. A public hearing was held in connection with this investigation in Lawrence on June 19th. This hearing was adjourned sine die at its conclusion in order to permit the Department to review the evidence and make such independent investigation as it considered advisable. In view of the conclusions to which we have arrived, no further hearing is deemed necessary.

At the hearing passenger counts over the routes in question were filed, together with certain financial data. It appears that the Lawrence Division of the Eastern Massachusetts Company operated for the first five months of 1951 at a total net income of $392.34 as compared with a similar figure for 1950 of $29,029.17 and for 1949 of $19,353.13. The expenses per bus mile in this area during this period in 1951 were 55.09 cents. The bus miles operated in 1949 were 965,342 and in 1950 were 859,009. There was no appreciable diminution in this figure in 1951. Operating revenues during this period decreased in 1950 by 12.08 per cent and in 1951 by another 9.44 per cent. Figures for the Eastern Massachusetts Company as a whole showed for the first quarter of 1951 net income after taxes of $35,777 as compared with similar figures for the first quarter of 1950 of $140,587. These net income figures are on total operating revenues of $3,042,348 for 1951 and $3,286,765 for 1950, and they result from operating ratios for the first quarter of 1950 of 92.8 per cent and for the first quarter of 1951 of 98.3 per cent, both ratios being computed before interest and before Federal income taxes. We find that the Eastern Massachusetts Street Railway Company in its operations in the Lawrence Division should and must take recourse to every economy possible in its operations in order to avoid increased fares and in order to enable it to keep operating for the benefit of the public as a whole.

[1] However, as we have previously pointed out (see Mayor of Lowell v. Eastern Massachusetts Street R. Co. D.P.U. 9439, June 1, 1951), the burden is upon the company to justify its actions and unless it appears upon a complaint of this nature that the public interest, of which we are the statutory guardians, is not adversely affected, it is our duty to insist that the complaint be upheld.

[2] As we said in the Lowell Case, *supra,* we are sympathetic with the carrier's desire to curtail its unprofitable operations if public convenience and necessity are not adversely affected thereby in order to preserve service on the lines where the public need is more evident. City Council of Peabody v. Eastern Massachusetts Street R. Co. (1951) 89 PUR NS 278; Mayor of Fall River v. Eastern Massachusetts Street R. Co. (1950) 84 PUR NS 127; Worcester v. Worcester Street R. Co. D.P.U. 9438, July 6, 1951. We said in the Lowell Case, *supra,* and we repeat that ". . . we prefer to see a bus company cut its service in order to conserve its resources than to see it make repeated applications for increased fares, when its financial position demands an increased margin between revenues and expenses. Re Springfield Street R. Co. (1949) 79 PUR NS 139; Worcester Common Council v. Worcester Street R. Co. D.P.U. 8709, Nov. 17, 1949; Mayor of Fall River v. Eastern Massachusetts Street R. Co. (1950) 84 PUR NS 127."

On the other hand, where public need for the existing service is demonstrated by a very substantial public patronage, we feel it is our responsibility to interpose our veto to the decision of the management to increase headways or otherwise curtail existing service. If patronage is adequate but operating revenues are still insufficient to produce an adequate net income, then the only possible conclusion to be drawn is that the patrons are not paying enough for the service.

We have reviewed the evidence in this matter, and we find that some of the proposed changes are fully justified but that the evidence does not support the company's contentions over the following routes and in the respects enumerated:

Andover Route: The company reports an average of 22.6 passengers out and 18.7 passengers in under the present schedule. Our independent investigation showed an average of 24.5 out and 21.3 in on one week day and an average of 36.0 passengers out and 27.9 passengers in on another week day. The company's count on Saturday, April 14th, showed an average of 27.5 passengers out and an average of 34.3 passengers in. On Saturday, June 16th, it shows an average of 44.5 passengers out and 11.8 passengers in. This route is a shuttle operation which requires the bus which goes out to come back over the same route. We do not believe that the evidence justifies the company in increasing its headway on week days and Saturdays. We will allow the proposed Sunday schedules to become effective.

Belt Line via South Union: An analysis of the passenger counts on this line convinces us that the proposed increases in headways are not justified and that the existing schedule should be continued. This conclusion is fortified by the results of a

revenue study undertaken by the Department which shows a revenue per mile for the entire day on this line to be 85.4 cents on June 26th and $1.03 on June 29th. This revenue is very substantially above the cost per mile as given to us by the company. We feel that the existing schedule should be continued on this route.

Belt Line via Central Bridge: The passenger counts put in evidence over this route do not convince us that these operations are unprofitable or that the public interest will not be seriously adversely affected by the proposed changes. This conclusion is also fortified by the independent investigation of the Department which shows an average revenue per mile for June 25th of 52.1 cents and for June 29th of 66.1 cents. We do not believe that the existing operations over this important line should be curtailed so long as they show revenues which approximately equal or even exceed the cost of operation. The traffic counts on Sunday over this route indicate that there is no necessity for the existing schedule, and we believe the company may place the proposed schedule in operation on Sundays only.

Lawrence Street: The passenger count filed by the company indicates an average of 25 to 30 passengers per trip over this line. Our own investigation showed an average riding from 11 A. M. to 3 P. M. on June 26th outbound of 24.1 passengers and inbound of 11.7 passengers. Similar average figures for other times of day show equally substantial riding over this route. We conclude the company may not increase the headways during week days and Saturdays over this route. If it wishes to decrease the headway between 3 to 4:30 P. M. it may do so on week days. We believe the company is justified in increasing the headways on Sundays in accordance with its proposal.

Methuen Route: The passenger counts filed by the company show an average on June 18th of 15.7 passengers out and 31.6 passengers in, an average of 13.6 out and 32.2 in on April 16th, and of 23.6 out and 24.2 in on June 12th. We do not believe that this record justifies the changes proposed for week days on this line. We approve the proposed changes in the Sunday schedules.

Prospect Hill: We find no passenger counts or other evidence supporting the proposal to increase the headway on Saturdays on this line. Accordingly we will order the existing service to be continued on this route on Saturdays.

Pleasant Valley: Much of the riding on this line is at capacity and over. On Saturday, April 28th, this line carried an average of 23.0 passengers out in 41 trips and an average of 22.4 passengers in on 40 trips. The Sunday passenger counts show a similar substantial riding over this line, and we do not believe that the increased headway suggested should be placed into effect.

For the reasons given above, upon investigation and after public hearing and consideration, it is hereby

Ordered: That the Eastern Massachusetts Street Railway Company place into effect on August 1, 1951, the schedule of operations advertised to become effective June 10, 1951, with the exception of the operations

over the lines otherwise indicated hereinabove; and it is

Further ordered: That the investigation by the Department in D.P.U. 9573 be and the same hereby is terminated and closed.

WISCONSIN PUBLIC SERVICE COMMISSION

Re Wisconsin Hydro Electric Company

2-U-3557, 2-U-3529
August 23, 1951; rehearing denied September 26, 1951

APPLICATION *for authority to increase electric rates and investigation of type of wholesale electric rate; rate increase prescribed and modification of wholesale rate ordered.*

Return, § 87 — Electric company.

1. A return of 6.1 per cent on a book value rate base was considered reasonable for an electric company, p. 157.

Rates, § 322 — Electric — Demand and energy type — Wholesale.

2. A demand and energy type of wholesale electric rate was authorized to be substituted for an hour's use type of rate, p. 158.

Expenses, § 114 — Income taxes.

3. Income taxes should be allowed as an operating expense for electric ratemaking purposes, p. 158.

By the COMMISSION: On February 15, 1951, the city of New Richmond, as an electric public utility, filed a complaint requesting investigation by this Commission of the reasonableness of the wholesale power rates of Wisconsin Hydro Electric Company.

On April 5, 1951, the Wisconsin Hydro Electric Company filed an application with this Commission for authority to increase rates.

The two cases were consolidated with the consent of all parties.

Hearings: At Amery on May 11, 1951, and at Madison on June 12, 1951, both before Examiner Samuel Bryan.

APPEARANCES: Wisconsin Hydro Electric Company by Rieser & Mathys by R. M. Rieser, attorney, Madison; city of New Richmond by George K. Hood by P. A. Reynolds, H. T. Ferguson, Attorney, Madison; Doughboy Mills and Friday Canning Corporation by W. T. Doar, Attorney, New Richmond; city of Spooner by Robert Zumbrunnen, City Attorney, and Edward E. Omernik; of the Commission Staff; E. M. Downey, rates and research department.

Opinion

The Wisconsin Hydro Electric Company supplies retail electric service in approximately 40 cities and vil-

lages and surrounding rural territory in the northwestern part of the state and to three wholesale customers, including New Richmond. Power requirements are obtained in approximately equal proportions from hydroelectric generation (at 8 dam sites), Diesel-electric generation (at Eau Galle, Clear Lake, and Chetek), and purchased energy (two sources).

In general, the applicant proposes an increase in the form of an additional surcharge of 5 per cent on base rates. On those rate schedules to which a 10 per cent surcharge applies, it would be increased to 15 per cent. Those rates which had no surcharge would have a 5 per cent surcharge on base rates before fuel clause, and the off-peak water-heating rate would be increased to 1.5 cents gross, 1.36 cents net per kilowatt-hour. It is estimated that these changes, based on estimated consumptions for the year ending January 31, 1952, and assuming the rates were effective throughout the period, would amount to an increase in revenue of $71,430.

The position of the city of New Richmond, as complainant, is principally that the form of the present wholesale rate, which is an hour's-use type of rate, should be a demand and energy type of rate, in keeping with common practice as to rate forms.

Rate Base

Applicant has submitted the following rate base (Exhibit 6):

	Jan. 31, 1951		Jan. 31, 1952
Utility plant	$5,911,827		$6,425,356
Less depreciation reserve	1,835,627		1,987,810
contributions	55,948		55,948
Net plant	$4,020,252		$4,381,598
Average net plant		$4,200,924	
Working capital		87,762	
Materials and supplies		141,663	
		$4,430,349	

The substantial increase in plant during the year includes $218,400 to complete the construction of the Clear Lake 66-kilovolt transmission line authorized by this Commission in CA–2827. The balance is made up of a large number of smaller construction items set out in detail in a letter dated August 6, 1951. Since average net plant is used, the contemplated additions will be accepted. An adjustment in working capital to 10 per cent of operating expenses, inclusive of the cost of purchased energy, would reduce this item approximately $33,000. For purposes of this case we find that a rate base of $4,400,000 is reasonable.

Revenues and Expenses

In Exhibit 1 applicant shows total kilowatt-hour sales for the twelve months ending January 31, 1951, of 50,002,407 and revenues of $1,464,-699.37, which compare reasonably with December 31, 1950, figures from the annual report. The kilowatt-hour sales were then trended to get comparable data for the year ending January 31, 1952. With no change in rates, applicant estimates kilowatt-

hour sales of 53,976,221 and revenues of $1,546,718.71 for this period. The proposed rate changes, based on the increased estimated sales would provide additional revenues of $71,430, bringing total revenues for the period of $1,618,149. We have checked the computations and the method used, and they appear to be reasonable. Other electric revenues of $7,500 would provide total operating revenues of $1,625,649.

Exhibit 3 shows actual operating expenses for the year ending January 31, 1951, and adjustments to reflect estimated expenses for the succeeding twelve months. The actual expenses appear reasonable when compared with operations during the calendar year 1950 as reflected in the annual report.

The following data taken from Exhibit 3 shows a comparison between actual expenses for the twelve months ending January 31, 1951, and estimated expenses for the following twelve months:

	Year Ending 1-31-51	Year Ending 1-31-52
Production Expense		
Hydro	$73,458.12	$77,137.26
Diesel	223,205.16	204,231.51
Purchased	269,408.40	332,334.29
Duplicate production charges	(637.17)	(637.17)
	$565,434.51	$613,065.89
All Other Operating Expenses	249,098.00	264,558.51
Depreciation	141,822.05	152,183.05
Taxes (other than income)	122,155.96	132,613.96
Taxes, income	130,014.00	177,011.81
Total	$1,208,524.52	$1,339,433.22

The estimated increases appear to be well within reason and, with the exception of the increase in production cost, do not require discussion. The increase in production cost results mainly from the increased kilowatt hours which were reflected in the increased revenues already discussed. It will be noted, that due to high Diesel-generation cost, production by this method has been restricted as reflected in lower Diesel-production costs. To take up this slack and to supply the added kilowatt hours reflected in increased sales, purchased energy costs are increased. The estimated increase in Federal income taxes is based on presently effective tax rates. With anticipated revenues of $1,625,649.19 and anticipated expenses of $1,339,433.22, the anticipated earnings, under the proposed rates, would amount to $286,215.97.

Attention was called to the fact that anticipated revenues are based on the application of the proposed rates throughout the twelve months ending January 31, 1952, whereas during at least seven months of that period no increase in rates was effective. The increase of $71,430 under the proposed rates, for the twelve months under consideration, it was contended, should be reduced to approximately one-half of that amount, or $35,715. Where a pro forma statement is developed by

projecting revenues and expenses based on estimates, the picture, so developed, must be considered as a whole. In this case, to adjust revenues as suggested would distort the picture. True, the new rates will not apply throughout the period, but neither did the wage rates and other estimated costs apply throughout the period. Actually, considering the projected picture for the twelve months ending January 31, 1952, the earnings, on the theoretical basis submitted, would have amounted to $286,215,977, as set forth in the following pro forma table:

	Actual 12 months to Jan. 31, 1951	Pro forma 12 months to Jan. 31, 1952
Operating revenues	$1,464,699.37	$1,618,149.19**
Other revenues	7,565.40	7,500.00
Total	$1,472,264.77	$1,625,649.19
Expenses		
Production	$565,434.51	$613,065.89
Other operating expenses	249,098.00	264,558.51
	$814,532.51	$877,624.40
Depreciation	141,822.05	152,183.05
Taxes (not income)	122,155.96	132,613.96
Income tax	130,014.00	177,011.81*
Total	$1,208,524.52	$1,339,433.22
Net	$263,740.25	$286,215.97
Return on rate base		6.5%

* 47 per cent Federal income tax
** Includes $71,430.48 due to increased rate and $82,019.34 due to increased sales.

Capitalization

As of January 31, 1951, the capitalization of the utility was as follows:

Bonds	$2,100,000
Serial notes	100,000
Debentures	500,000
Total debt	$2,700,000
Common stock	$1,751,076
Surplus	146,844
Total equity	$1,897,920
	$4,597,920

[1] Interest requirements amounted to $89,563 and dividends paid in 1950 were $116,738.40. From past experience we are satisfied that a return on equity capital of 10 per cent is sufficient to provide a market for such securities. This would mean equity earnings of $189,792, plus interest requirements of $89,563, or a total of $279,355. This represents a return on the capitalization of about 6.05 per cent. For purposes of this case, we feel that a 6.1 per cent return on book-value rate base is reasonable. On a $4,400,000 electric rate base this would require net earnings of $268,400. The gas utility earnings in 1950 of about $17,000 would bring total company earnings to $283,400.

Rates

The proposed rates would provide an increase in gross revenues of $71,430 and net earnings of $286,216. Since electric utility net earnings of

$268,400 have been found to be adequate, the proposed rates must be modified. Because of the importance of the income-tax factor, it is only necessary to increase revenues by $35,-000 instead of the proposed $71,430 in order to obtain net earnings of $268,400. This may be accomplished by increasing the surcharge on general rates to 12 per cent instead of 15 per cent, the surcharge on rates with fuel clauses to 4 per cent instead of 5 per cent, and establishing an off-peak water-heating rate of 1.35 cents net. It will be noted that the increase on rates with fuel clauses is greater than on the other rates. This seems equitable since the fuel clause is corrected only for increased fuel costs, whereas the present 10 per cent surcharge is corrected for all increased costs including taxes. Because income taxes have become such a large factor in the total cost and since this increase was not covered at all by the fuel clause, it seems reasonable that the present adjustment should be greater on those rates which have only a fuel-clause adjustment at the present time. The rates herein proposed, we believe, will equitably spread the necessary increase between the various classes of customers.

Wholesale Rate

[2] At the present time, applicant applies resale service to three customers, including the city of New Richmond, under an hours'-use rate which forms the basis of the formal complaint of that city and which complaint has been consolidated with the petition for increased rates by Wisconsin Hydro Electric Company in this proceedings. Under an hours'-use type of rate, increased purchases without an improvement in load factor do not offer any benefits to the purchaser in the form of a lower average cost. Under a demand and energy type rate, increased use falls in the lower blocks of the rate and affords benefits in the form of lower average costs even if the load factor is not improved. The demand and energy type rate has become quite standard in Wisconsin where large blocks of power are involved. Wisconsin Hydro Electric Company applies a demand and energy type rate to its large industrial users. It purchases energy from two large utilities, in both cases under a demand and energy type rate.

The city does not contend that the level of the rate is excessive. It merely requests that a demand and energy type rate be substituted for the present hours'-use type of rate. Wisconsin Hydro Electric Company did not offer any sound arguments against such a change. We feel that the city's request is reasonable, and a demand and energy type rate will be designed to provide approximately the same revenues that would derive under the present type of rate. In making this type of rate change, it is necessary to resort to an averaging process where more than one customer is involved. Actually, Spooner (being the smaller) will be increased slightly and New Richmond reduced slightly. It is also necessary to retain schedule W–6 for the present.

Income Taxes as Operating Expense

[3] Reply brief of Doughboy Industries, Inc., and Friday Canning Corporation contends that the utility should operate under price ceilings and that "there is no reason why

it should pass its income taxes on to its customers." As opposed to the privileges and opportunities of industry generally, utilities, in effect, operate under price ceilings and controls at all times. On the question of allowing income taxes as an operating expense, it is only necessary to point out that in 1922 the United States Supreme Court, in the Galveston Case, 258 US 388, 66 L ed 678, PUR1922D 159, 169, 42 S Ct 351, held that income taxes was an allowable deduction. The court there said: "In calculating whether the 5-cent fare will yield a proper return, it is necessary to deduct from gross revenue the expenses and charges; and all taxes which would be payable if a fair return were earned are appropriate deductions. There is no difference in this respect between state and Federal taxes, or between income taxes and others."

The principle of law announced in this case has been followed by many other courts and utility regulatory Commissions since 1922 and represents the accepted rule on the subject.

Findings of Fact

The Commission *finds*:

1. That the existing rates of Wisconsin Hydro Electric Company are unreasonable because of inadequacy.

2. That under the circumstances of this case it is reasonable to require that the wholesale rate of Wisconsin Hydro Electric Company should be changed from an hour's-use type of rate to the more common demand and energy type of rate.

3. That the net book value of applicant's property and plant less contributions and plus working capital and materials and supplies is $4,400,000 and that such value constitutes a reasonable and proper rate base.

4. That the rates ordered herein will yield a return of approximately $268,400 for the year ending January 31, 1952, constituting a return of approximately 6.1 per cent on the above rate base, which return under the particular circumstances of this case is a fair and proper return on said rate base and which rates are reasonable and lawful.

Conclusions of Law

The Commission concludes:

That it has jurisdiction under §§ 196.03, 196.20, and 196.37 to enter an order authorizing the applicant to apply revised rates in accordance with the above findings of fact and that such an order should be entered.

NEW YORK PUBLIC SERVICE COMMISSION

Re Niagara Mohawk Power Corporation

Case 15472
September 24, 1951

PETITION *by electric company for authority to construct an electric plant and exercise franchise rights in a village; granted in part.*

Certificates of convenience and necessity, § 29 — When required — Existing plant — Routine extensions.

An electric company that intends to operate under a new franchise and whose plant now furnishes service to the territory does not need authority to erect a plant where it only contemplates construction of routine extensions.

APPEARANCES: Lauman Martin by Albert J. Danaher, Vice President and General Counsel, Syracuse, New York, for Niagara Mohawk Power Corporation.

EDDY, Commissioner: This application requests our permission and approval for the construction of an electric plant and the exercise of a franchise in the village of Dexter, Jefferson county.

The company is presently serving the village of Dexter under a franchise originally granted to Edward Hunter and Celestin C. Burns on October 17, 1906, which franchise had a term of twenty years. The franchise was subsequently extended for the term of twenty-five years. It was duly assigned to The Dexter Electric Light and Power Company which merged into the Watertown Light and Power Company which, in turn, merged into Northern New York Utilities Inc. The latter was merged into Central New York Power Corporation whose name was subsequently changed to the name appearing in the petition.

The company presently serves some 365 customers in the village and received in revenue for the year ending December 31, 1950, from the sales of electricity, the sum of $25,273.44. The old franchise, as extended would expire on October 17th of this year. In the event the approval of the new franchise is given, the old franchise will be surrendered.

It does not appear that the company contemplates the erection of any plant in the village other than routine extensions.

Conclusion and Recommendation:

The company is presently serving the village of Dexter under a franchise originally granted in 1906, which will expire in October of this year. The approval of the new franchise, which will be perpetual in duration, appears to be in the public interest. Since the company presently has a plant and no construction other than routine addition is to be expected, there is no need for authority to erect a plant.

Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

Virginia Electric Plans to Spend $40,000,000 on Expansion

VIRGINIA ELECTRIC & POWER COMPANY recently announced it will spend approximately $40,000,000 for expansion in 1952 raising its postwar construction expenditures to more than $200,000,000.

The company expects 1951 expenditures to amount to $39,300,000, of which $25,000,000 had been spent by last August 31. This year's total includes $11,100,000 for additions to generating capacity and $7,800,000 for electric transmission facilities.

Its 1952 estimate may be increased by about $8,000,000 if the company is able to go ahead with construction of its proposed 91,000-kilowatt hydroelectric plant on the Roanoke river near Roanoke Rapids, North Carolina. This station, expected to cost a total of $27,000,000, is the subject of pending litigation brought by the Secretary of the Interior and rural electric coöperatives on the ground that congressional action had pre-empted the site for federal development.

Virginia Electric & Power also had asked the Federal Power Commission for a license to construct another $27,000,000 hydro plant on the Roanoke river at Gaston, North Carolina.

Additions to generating facilities planned for 1952 will raise total capability to 970,000 kilowatts. The present figure is 760,000 kilowatts.

800,000 Kilowatts of Power Under Construction

TWO big generating plants are being built to meet the tremendous industrial expansion and growing power needs of the 7-state area—Indiana, Michigan, Ohio, West Virginia, Virginia, Kentucky, and Tennessee—served by the American Gas and Electric System.

These two plants—the Kanawha river plant in West Virginia and the Muskingum river plant in central Ohio, when finished, will pour 800,000 kilowatts of generating capacity into the present power network of the American Gas and Electric System—bringing the total capacity of the system to over 3,700,000 kilowatts by the end of 1953.

New Bushwacker Catalog

A NEW two-page catalog in color has been published on the Bushwacker, a heavy-duty, tractor-mounted machine for low-cost land-clearing operation.

A series of on-the-job action photographs illustrates the principle of operation, rate of production and final results at a typical job site. Complete specifications and operating data are also included.

Copies of this catalog are available from International Harvester Industrial Power Equipment Dealers, national distributors for Bushwacker.

New President Elected by Electrical Manufacturers

J. F. LINCOLN, president, The Lincoln Electric Company, Cleveland, Ohio, recently was elected president of the National Electrical Manufacturers Association. He succeeds C. W. Higbee, manager, electrical wire and cable department, United States Rubber Company, New York, New York.

Five vice presidents and a treasurer were named by NEMA's 25th annual meeting held recently in Atlantic City, New Jersey:

Arthur A. Berard, president, Ward Leonard Electric Co., Mount Vernon, N. Y.; J. W. Corey, president, The Reliance Electric & Engineering Co., Cleveland, Ohio; J. H. Jewell, vice president, Westinghouse Electric Corporation, Pittsburgh, Pa.; Alan F. Sheldon, president, Kennecott Wire & Cable Company, Phillipsdale, R. I.; Hoyt Post Steele, executive vice president, Benjamin Electric Mfg. Co., Des Planes, Illinois; and L. G. Hall, president, Stackpole Carbon Company, St. Marys, Pa., was chosen treasurer.

Announces New Line of Public Utilities Receipting Machines

A. C. GIBSON CO., INC., of Buffalo, New York announces the manufacture of receipting machines designed to cover every specific purpose for receipting, dating, and cutting stubs or coupons for all sizes of gas, electric, telephone, water, and tax bills, with interchangeable slide-style die blocks and automatic fall-through slots for stubs.

Durable and sturdy, the machines are made with hardwood frames, one-piece fine nickel head castings with extra-heavy bearings, and have monel metal surfaces—yet are lightweight for easy moving and take less than one square foot of space.

Other Gibson features are the locked drawer into which stubs drop as bills are receipted, and built-in, easily-adjustable band daters.

All models are easily adaptable to as many as sixteen types of bill receipting requirements. Special models for exceptional types of receipting can be obtained.

For a free catalog write to A. C. Gibson Co., Inc., 70 Oak street, Buffalo 5, New York.

(*Continued on page* 34)

Elliott Company Completes 50th Year

ELLIOTT COMPANY, Jeannette, Pennsylvania manufacturer of steam and electrical equipment, recently marked its 50th year at a special meeting of the Elliott Veterans Association. Nearly 300 veterans, ranging from 20 to 50 years of service, took part in the affair.

A series of episodes from the company's early history was dramatized, including several amusing incidents from the career of the late company founder, W. S. Elliott. An interesting scene was a presentation of the first Elliott Board of Directors meeting on October 28, 1901, with Elliott Veterans, in costume of the times, reproducing the event from actual minutes of the original meeting. Company President W. A. Elliott, son of the founder, carved a giant birthday cake commemorating the anniversary.

A-C Releases WA-Series Steam Turbine Generator Bulletin

DESIGN and construction features of Allis-Chalmers WA-Series steam turbine generator units manufactured in NEMA ratings of 2,000 to 7,500 kw are described in a new bulletin released by the company.

According to the bulletin, the WA-Series design is based on proven construction features accumulated in 50 years of turbine-generator design and development. The WA-Series units are built in the condensing type, for power generation only, and in the non-condensing and automatic extraction types to provide a steam-power balance where process steam is used.

Cross section views of each of the turbine types are shown as well as cross sections of the steam turbine generator unit, of the construction of governing valves and operating mechanism, and a cutaway view of WA-Series housing type generator showing spiral air flow in the stator.

Copies of the bulletin, "WA-Series Steam Turbine Generator Units," 03B7654, are available upon request from Allis-Chalmers Manufacturing Company, 965 S. 70th street, Milwaukee, Wisconsin.

Tennessee Gas Transmission Has $100,000,000 Program

TENNESSEE GAS TRANSMISSION COMPANY, whose 2,000-mile-long natural gas pipeline system is said to be the longest in the country, is spending $100,000,000 for expansion this year and expects to spend an additional $55,000,000 in 1952, according to Gardiner Symonds, president. Present delivery capacity is 1,200 million cubic feet daily, an increase of 20 per cent over the first of this year.

No. Indiana Public Service Installs New Unit

IN order to supply the growing demands for service, the third electric generating unit to be installed at the Michigan City generating station of Northern Indiana Public Service Company was placed in service recently, according to Dean H. Mitchell, president. With the new unit in operation, the electrical capacity of the station is approximately three times the original capacity when the station was built in 1931. The second unit was placed in operation in October, 1950.

The rated generating capacity of the second and third units is 70,015 kilowatts each, compared to 68,000 kilowatts for the #1 unit. Steam for the two new units is supplied by three new boilers at 1,325 pounds per square inch pressure and at a temperature of 960 degrees F.

To produce the steam, coal is burned in cyclone burners, a modern, highly efficient method of burning crushed coal. With all three generating units in operation, the station will require approximately 40 carloads of coal of 50 tons each, every day.

New Orleans Public Service Wins Two Advertising Awards

NEW ORLEANS PUBLIC SERVICE INC. has received the "Best of Industry" award in two categories in the 23rd annual direct mail advertising campaign competition sponsored by the Direct Mail Advertising Association, according to W. J. Amoss, vice president and director of advertising for Public Service.

Of the 52 industrial classifications in the contest, Public Service was judged to have produced the best direct mailing pieces in the Home Appliance and Public Utility industries.

Emmett H. Fremaux, assistant to the director of advertising, received the two awards for Public Service from C. B. Larrabee, president and publisher of Printers' Ink, at the annual DMAA conference in Milwaukee in October.

Mr. Larrabee, who served as chairman of the judges committee, cited Public Service as the only company in the competition to take two first place awards in separate industrial categories.

Philadelphia Electric Increases Expansion Program

THE PHILADELPHIA ELECTRIC COMPANY has just increased its expansion and new construction program and now expects to spend $365,000,000 additional by the end of 1956.

Added to the $217,000,000 already laid out, total expenditures for the eleven-year postwar period will be well above the half-billion dollar mark, according to Henry B. Bryans, president.

Conversion Services Described In Folder

COMMONWEALTH SERVICES INC., has issued a folder describing the operations of its subsidiary, Commonwealth Gas Conversions, Inc. The latter company, it is stated, was organized expressly to render complete conversion services to gas distributing utilities—which plan to convert present gas burning equipment from

(*Continued on page* 36)

the use of manufactured gas to straight natural gas, oil gas, or other types of gas service.

A variety of facilities are detailed in the folder, touching upon field work, public relations, and related conversion problems which the company announces it is prepared to offer.

Copies of the folder may be obtained by writing to the Adverstising Department, Commonwealth Services, Inc., 20 Pine street, New York 5, New York.

West Penn System Plans Expansion

PLANS for large additions to the generating facilities of the West Penn Electric system by two of its operating subsidiaries were announced recently by Earle S. Thompson, president of the West Penn Electric Company.

West Penn Power Company will install the eighth unit at its Springdale station in Pennsylvania, and Monongahela Power Company will install the third unit at the Albright station, now under construction in West Virginia. It is expected that each unit will have an effective capacity of approximately 135,000 kilowatts, and that their combined cost will be about $35,000,000 on the basis of preliminary estimates.

In 1954, the capability of the West Penn Electric system, according to Mr. Thompson, after all of the presently projected additions are completed, will total about 1,700,000 kilowatts. By contrast, the capability of the system in 1944 amounted to only 770,000 kilowatts.

Iowa Southern Utilities Plans $17,000,000 Expansion

IOWA SOUTHERN UTILITIES COMPANY recently announced it will spend approximately $17,000,000 for additions and improvements in the three years ending 1953.

More than one-half the budget will be for its new Bridgeport station, near Eddyville, Iowa. This $8,750,000 plant is scheduled to go into operation early in 1953. It will increase the system's generating capacity to 76,300 kilowatts from its present 32,000-kilowatt capacity and materially lessen the utility's dependence on purchased power. The budget also includes $6,000,000 for expanded electric transmission and distribution facilities and $2,250,000 for gas facilities and other equipment.

Noise Elimination

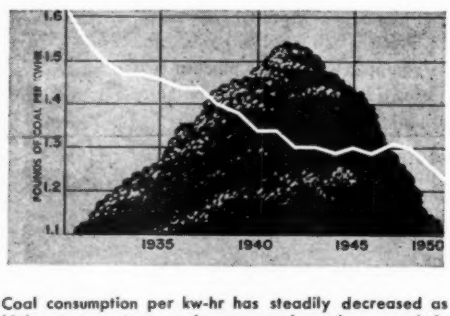
THE problem of industrial noises and their control is the subject of a pamphlet just issued by the Industrial Acoustics Company, 333 Jackson avenue, New York 54, New York.

The pamphlet illustrates the principles of noise measurement and how these noises are related to the human ear. Because noise is an objectionable sound, the elimination of these noises results in increased efficiency, improved employee morale and bettered public relations.

Compact appearance of units is illustrated by model used by design engineers. Left to right, C. S. Coggeshall, Assistant to Manager, G. B. Warren, Manager, and E. E. Parker, Manager of Engineering for G.E.'s Turbine Division.

1100 F turbines mark new step forward in fuel economy

Two new 145,000 kw turbines for the Kearny station of the Public Service Electric and Gas Company, New Jersey, are now under construction at General Electric. They will be the first turbines to operate at initial steam temperatures and pressures of 1100 F and 2350 psig, and reheat te[mperatures] of 1050 F.



Coal consumption per kw-hr has steadily decreased as higher temperatures and pressures have been used. In 1950 the utility industry average was 1.19 lb per kw-hr, and latest figures show a further reduction to 1.14 lb.

Here is a new step forward in the i[n]dustry's continuing efforts to genera[te] more electric power with less fuel co[n]sumed for every kilowatt-hour produced.

Already, average consumption of co[al] per kilowatt-hour is down to only 1.14 —a reduction of 40 per cent over the pa[st] 25 years. But this is only the average. T[he] highest temperature turbines now in ope[r]ation, using steam at 1050 F, produce o[ne] kw-hr for every three-quarters of a pou[nd] of coal consumed.

The latest increase to 1100 F will bri[ng] new high levels of efficiency and cons[e]quent fuel economy. General Electric C[o.], Schenectady 5, N. Y.

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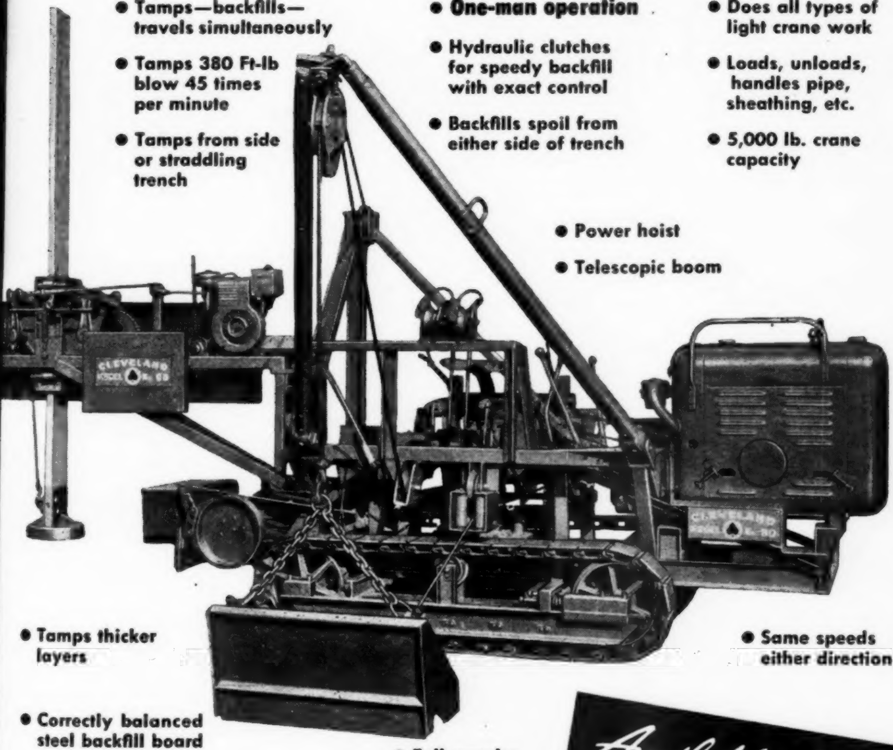

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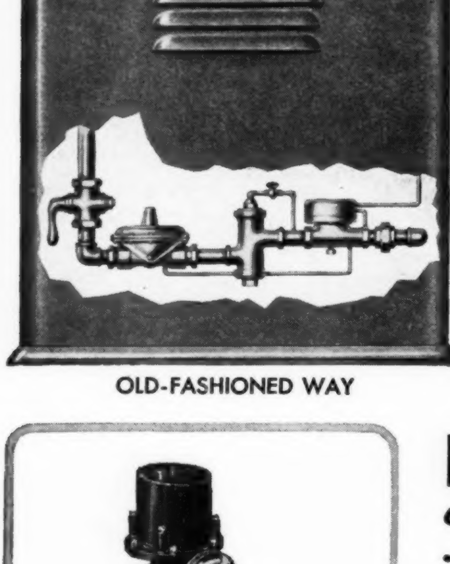
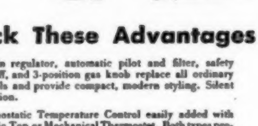


OLD-FASHIONED WAY

MODERN GASAPACK WAY



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- Built-in regulator, automatic pilot and filter, safety shut-off, and 3-position gas knob replace all ordinary controls and provide compact, modern styling. Silent operation.
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A-P's modern design offers many other advantages. Service ever required, is reduced to simple replacement of one unit. A you can provide complete thermostatic temperature control, w two simple, easily installed sets that spell additional profit on ev heater sale! Write for Bulletin G-6.

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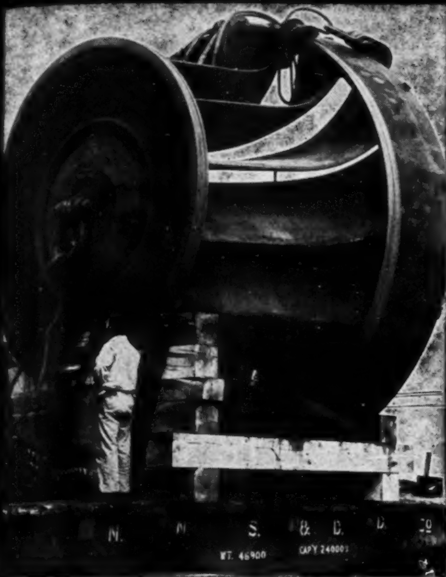

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The Newport News Shipbuilding and Dry Dock Company has received orders for the building of hydraulic turbines aggregating output of 8,150,000 horsepower.

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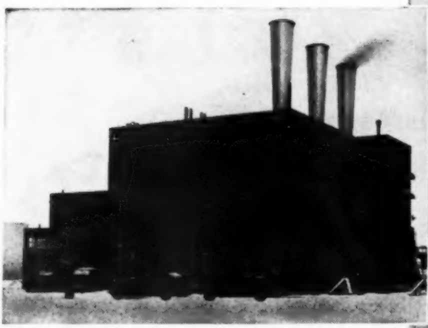
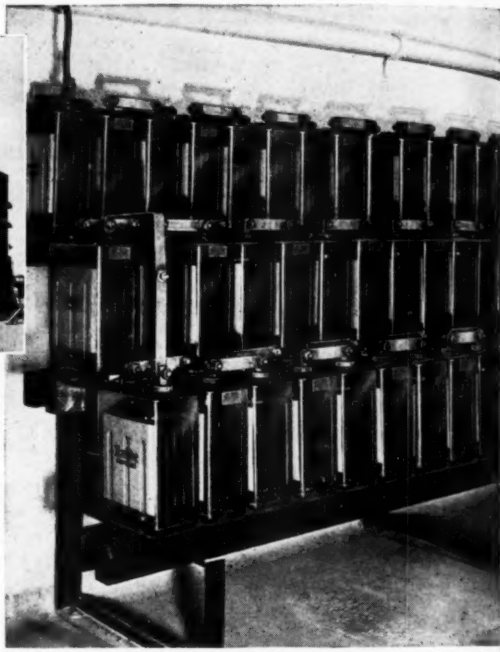
NEWPORT NEWS

SHIPBUILDING AND DRY DOCK COMPANY

Newport News, Virginia



Power house of Ford Motor Company's Buffalo Stamping Plant, Lackawanna, N. Y., equipped with Exide-Manchex Batteries for switchgear operation and emergency lighting.



Bank of 120-cell DME-9A Exide-Manchex Batteries mounted on Exide 3-step #37333 rack.

Exide-Manchex

PROVIDES BATTERY POWER AT FORD'S BUFFALO STAMPING PLANT

Efficiency of operation and equipment is characteristic of all departments of the great Ford Motor Company organization. Thus it is significant that the battery selected for the power house of their Buffalo Stamping Plant is an Exide-Manchex. This is the third Exide-Manchex at this plant, each a 120-cell DME-9A battery.

Throughout the country, in public and private power plants of all sizes, the Exide-Manchex is daily proving its dependability, long life, and economy. In Exide-Manchex Batteries you get:

POSITIVE OPERATION: Dependable performance at ample voltage with no switching failures.

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LOW DEPRECIATION: Sturdy, long-life construction.

GREATER CAPACITY in a given amount of space avoids overcrowding of equipment. These are the features that help to make Exide-Manchex *your best battery buy* for all control and substation services.

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Much has been learned during those 16 years. Though the time is too short to specifically predict length of battery life, definite conclusions have been reached regarding proper application. We will be glad to inform you where these cells can satisfactorily serve.

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